

JUNE 28, 1954

"Jet Rocket" for Rock Island . . . p. 60

# RAILWAY AGE

The Standard Railroad WEEKLY Since 1856

ROLLERS ARE  
MADE TO ROLL.  
THEY ARE NOT  
DESIGNED TO  
SLIDE.



*This month Dr. Oscar Horger demonstrates why Timken bearings always roll without lateral motion.*

## The taper makes TIMKEN® the only journal bearing that delivers what you expect when you buy a roller bearing

WHAT you really buy roller bearings for is to end the hot box problem, cut costs. The Timken® tapered roller bearing is the one bearing you can count on to end the hot box problem and cut operating and maintenance costs to a minimum. It's the taper! Here's why:

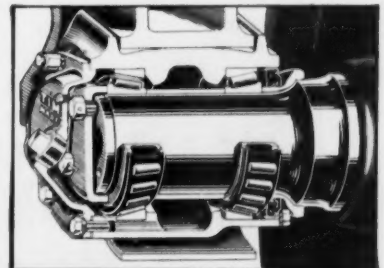
1) *No lateral movement within the bearing.* Roller bearings are made to roll—not slide. Under high unit pressures, lateral movement in straight roller bearings causes sliding and scuffing, shortens bearing life. It usually shows up in the form of longitudinal surface sliding marks on the rollers and races. Lateral movement also pumps lubricant through the seal and out of the journal box, draws dirt and water in. And auxiliary thrust devices are needed to take the thrust loads. These thrust devices aren't completely effective and are hard to lubricate with grease.

The taper in Timken bearings prevents lateral movement, enables them to take the thrust. There's no scuffing, no pumping action. This elimi-

nates the hot box problem, means less maintenance, less lubricant and longer bearing life.

2) *Positive roller alignment.* The taper holds ends of rollers snug against the rib where wide area contact keeps rollers properly aligned. There's no skewing of rollers to upset the full line contact and shorten the life of the bearing.

Really get what you pay for when you switch to roller bearings to end the hot box problem and cut operating and maintenance costs to a minimum. Get Timken tapered roller bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario.



THE TAPER MAKES **TIMKEN** THE BEARING YOU TRUST

NOT JUST A BALL ○ NOT JUST A ROLLER □ THE TIMKEN TAPERED ROLLER □ BEARING TAKES RADIAL AND THRUST — — LOADS OR ANY COMBINATION

**New Signaling on the CB&Q**

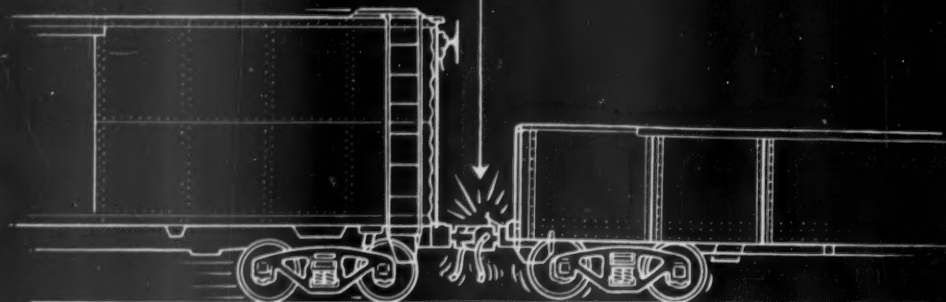
**Why Suspend the Right to Experiment with Piggyback?**

**New M&StL Management Interviewed**

**Military Traffic by Air—Why?**

**Four Basic Problems in Public Relations**

# Post-Graduate of the School of **HARD SHOCKS**

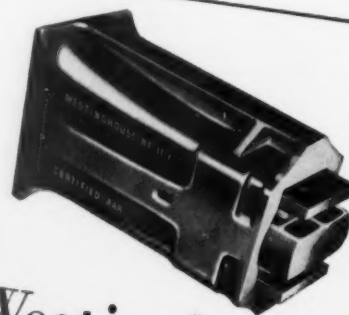


## *After Years of* **HUMP TESTING!!!**

One of the earliest gears to be certified by the A.A.R., Westinghouse Friction Draft Gears have continued as one of railroading's most useful appliances during these years. Through the toughest of road service they have taken humping, bumping . . . literally billions of severe shocks and impacts, and have gone on saving valuable rolling stock, reducing damage claims. The Westinghouse Draft Gear's good and basic principle has been subjected to progressive design improvements. Its A.A.R. Certificate was later re-issued to cover these improvements . . . and research is still continuing. It always has been, always will be, the aim of Cardwell Westinghouse to build the best, most practical draft gears modern engineering can devise.

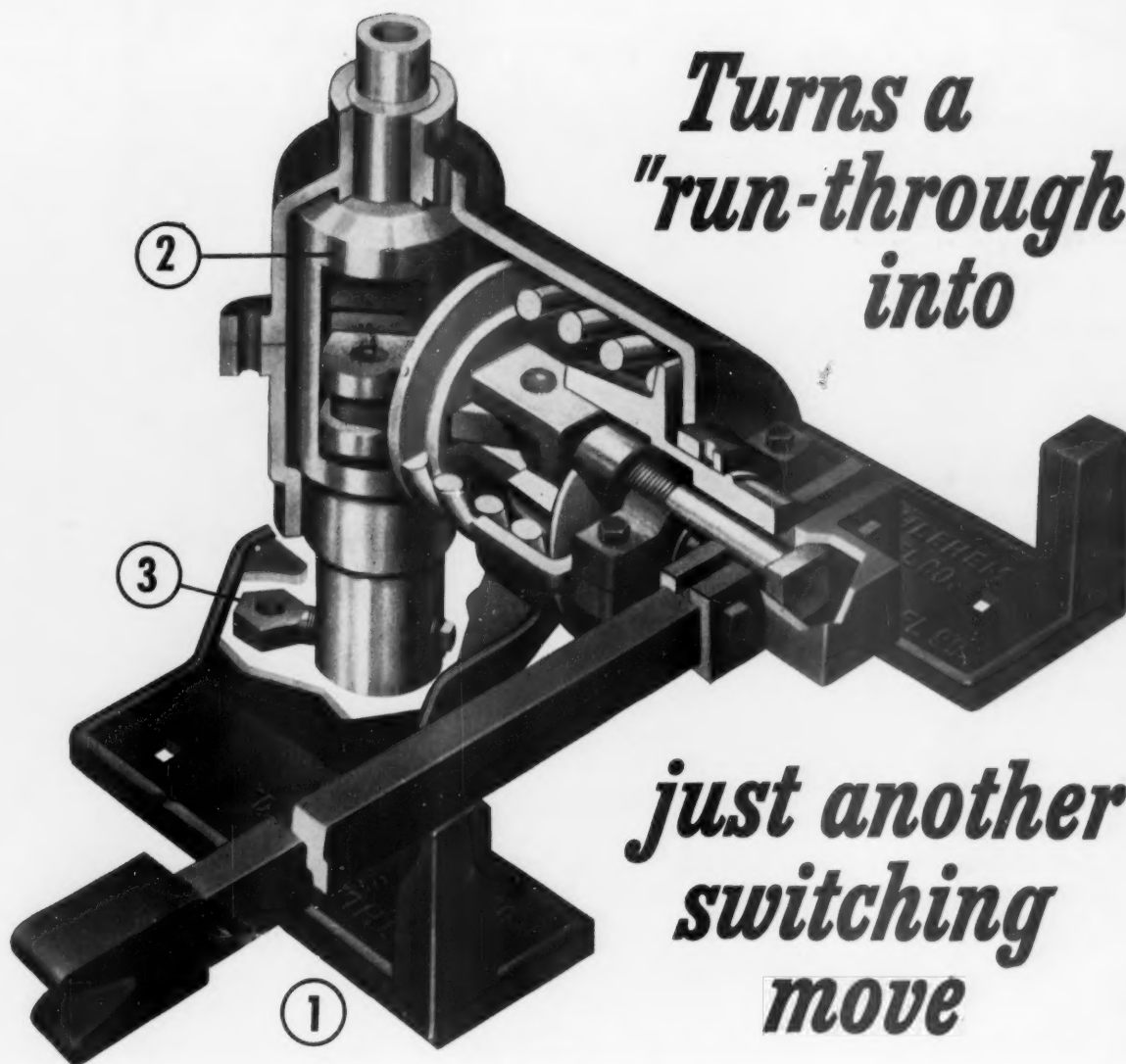
Cardwell Westinghouse Co., Chicago  
Canadian Cardwell Co. Ltd., Montreal

*Specify*  
**CARDWELL  
WESTINGHOUSE**



**Westinghouse**  
**FRICTION DRAFT GEAR**  
**Type NY-11-F**  
**Certified A.A.R.**

• Cardwell Draft Gears • Westinghouse Draft Gears • Cardwell Friction Bolster Springs •



Here is an automatic switch stand that takes run-through movements right in stride, with no pain or strain, no fuss or feathers. Bethlehem's Model 99 was built unusually husky—considerably heavier than any other—to insure long life in this rugged kind of service.

The cutaway drawing portrays brute strength, and this stand really has it. What looks like an extra-large base (1) actually is an extra-large base, for added stability on the ties. That spindle lug (2) really is a brute, and its bearing areas top and bottom really are outsize, to give longer life to this key component.

Even the screw eye (3) is something special. Forged of heat-treated alloy steel, it has rounded thread roots to minimize stress concentration which could lead to fatigue failure.

Operation of Model 99 is simple and foolproof, with a minimum of working parts. In a trailing movement, the first set of wheels nudges the points toward the new position. The powerful compression spring then takes over the completion of the movement and holds the points in the new setting until they are returned, either by the operat-

ing lever or another run-through operation. The target always changes with the points, but the lever doesn't move unless thrown by hand.

This new Bethlehem switch stand seems to be just what the railroads want, for hundreds of Model 99's have already been placed in service. If you have some yard or branch line turnouts where run-through operations have caused trouble, the Model 99 will step in and do a job. A Bethlehem engineer will be glad to talk it over with you.

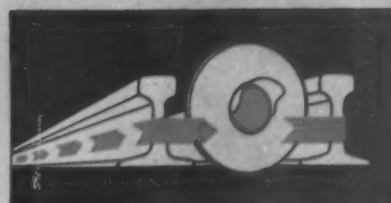
BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation, Export Distributor: Bethlehem Steel Export Corporation

**BETHLEHEM  
AUTOMATIC  
SWITCH STAND  
MODEL 99**







**RAIL TRANSMITTED  
SIGNAL CONTROLS**



## Fewer cut sections — longer track circuits with **"UNION"** Coded Track Circuit Control

● With "Union" Coded Track Circuits, the train shunts against the *pick-up* value, not the release value of the track relay, which means higher shunting sensitivity. Because of this feature, and others, coded track circuits can be much longer than steady-energy circuits.

Potential savings are substantial, when you analyze the advantages of the coded track circuit system. There are fewer cut sections—fewer insulated joints—fewer housings. You can reduce, or often *eliminate* line wires and the cost of installing and maintaining them.

All this is in addition to the fact that "Union" Coded Track

Circuits give you maximum protection against foreign currents. Get in touch with our nearest district office for more details.

### **UNION SWITCH & SIGNAL**

**DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY**

SWISSVALE



PENNSYLVANIA

NEW YORK

CHICAGO

ST. LOUIS

SAN FRANCISCO



# RAILWAY AGE

June 28, 1954

Vol. 136, No. 26

EDITORIAL AND EXECUTIVE OFFICES AT 30 CHURCH STREET, NEW YORK 7, N. Y., AND 79 WEST MONROE STREET, CHICAGO 3, ILL. BRANCH OFFICES: 1081 NATIONAL PRESS BUILDING, WASHINGTON 4, D. C.—TERMINAL TOWER, CLEVELAND 13, OHIO—TERMINAL SALES BUILDING, PORTLAND 5, ORE.—1127 WILSHIRE BOULEVARD, LOS ANGELES 17, CAL.—244 CALIFORNIA STREET, SAN FRANCISCO 11, CAL.—2909 MAPLE AVENUE, DALLAS 4, TEX.

EDITOR.....James G. Lyne  
EDITORIAL CONSULTANT.....Samuel O. Dunn  
EXECUTIVE EDITOR.....William H. Schmidt, Jr.  
MANAGING EDITOR.....C. B. Tavenner  
NEWS & FINANCIAL EDITOR.....

Gardner C. Hudson  
WASHINGTON OFFICE.....Walter J. Taft  
WESTERN EDITOR.....M. H. Dick  
TRAFFIC & TRANSPORTATION DEPARTMENT  
Robert G. Lewis John W. Milliken  
Joe W. Kizzia

MECHANICAL DEPARTMENT.....  
C. B. Peck E. L. Woodward  
H. C. Wilcox C. L. Combes G. J. Weihs  
ELECTRICAL DEPARTMENT.....Alfred G. Oehler  
ENGINEERING DEPARTMENT.....

Radford E. Dove Halbert H. Hall  
Robert F. Lindsay

PURCHASES & EQUIPMENT.....Fred C. Miles  
SIGNALING & COMMUNICATIONS

John H. Dunn Robert W. McKnight  
WESTERN NEWS DEPARTMENT.....A. M. Cox, Jr.  
EDITORIAL PRODUCTION.....Ralph M. Schmidl  
ASSOCIATE EDITOR.....Charles Layng  
LIBRARIAN.....Edith C. Stone

EDITORIAL ASSISTANTS.....  
June Meyer Ann Ortlinghaus  
Anne Schreiner Emma Rehm



SUBSCRIPTION TO RAILROAD EMPLOYEES ONLY IN U. S., U. S. POSSESSIONS, CANADA AND MEXICO, \$4 ONE YEAR, \$6 TWO YEARS, PAYABLE IN ADVANCE AND POSTAGE FREE. SUBSCRIPTION TO RAILROAD EMPLOYEES ELSEWHERE IN THE WESTERN HEMISPHERE, \$10 A YEAR; IN OTHER COUNTRIES, \$15 A YEAR—TWO-YEAR SUBSCRIPTIONS DOUBLE ONE-YEAR RATE. SINGLE COPIES 50c, EXCEPT SPECIAL ISSUES \$1. CONCERNING SUBSCRIPTIONS ADDRESS ROBERT G. LEWIS, VICE-PRESIDENT, 30 CHURCH ST., NEW YORK 7.



Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn., under the Act of March 3, 1879. Name registered in U. S. Patent Office and Trade Mark Office in Canada. Simmons-Boardman Publishing Corporation: James G. Lyne, president. Samuel O. Dunn, chairman emeritus. J. S. Crane, vice-president and secretary. Harry H. Melville, C. W. Merriken, John R. Thompson, William H. Schmidt, Jr., J. S. Vreeland, Fred W. Smith, Robert G. Lewis, vice-presidents. Arthur J. McGinnis, executive vice-president and treasurer. Ralph E. Westerman, assistant treasurer.

## Week at a Glance

**Despite its tremendous backlog of work, and the multitude of basic decisions confronting it, the ICC has taken time out to rule that railroads can't merchandise their wares to the press—or give away as prizes the one thing they have most of—transportation! 7**

**FORUM: Suspension of the right to conduct experiments in piggyback operation has been decreed by the ICC—another example of that peculiar form of regulation wherein management is denied the right to make truly management-level decisions. 49**

**Why so much military traffic moves by air—in planes which must be overloaded to show a profit in passenger operation—is explained by John H. Frederick, professor of transportation at the University of Maryland. 50**

**New wayside and cab signaling on the Burlington increases track capacity and saves time. 54**

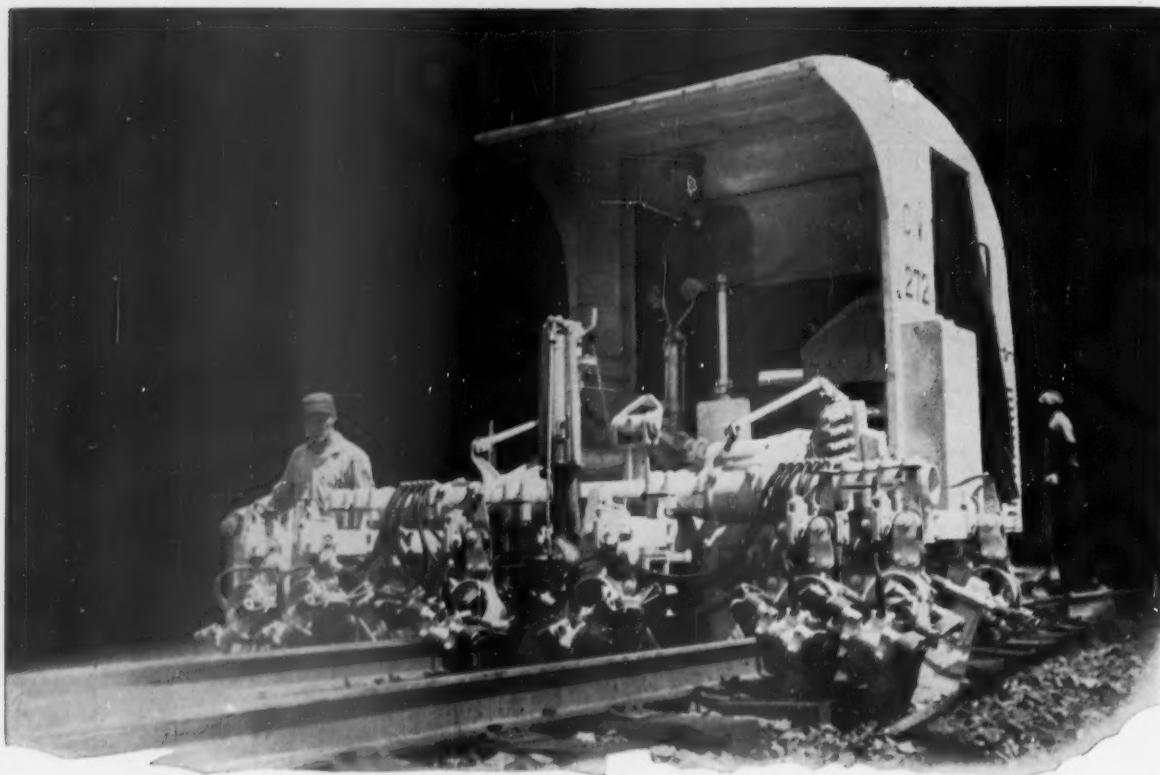
**"Four basic problems" were under discussion at the recent convention of the Railroad Public Relations Association. 57**

**First new-type "Talgo" train in the U. S. has been tentatively slated by the Rock Island for its Chicago-Peoria run. Train will be named the "Jet Rocket." 60**

**IC fills in three trestles originally constructed following the 1937 Ohio river flood. 62**

**No spectacular plans for the M&StL are in the wind at present, according to Ben W. Heineman, new executive committee chairman. 65**

**Fully modernized diners, to be used on feature trains, built by the B&O in its own shops. 67**



**HERE'S HOW YOU SAVE WITH**

## **JACKSON MULTIPLES**

### **MORE FINISHED TRACK PER DAY**

In any lift, from that which is no lower than the average size of ballast used to the very highest, no tamper equals the ability of the Jackson Multiple to put up high quality finished track.

### **OF GREATER UNIFORMITY**

In the majority of cases no follow-up operation, whatever, is required. It's the only on-track tamper that tamps the "vital spot" — the load-bearing zone directly beneath the rail.

### **WITHOUT DAMAGE TO TIES OR BALLAST**

The unique and powerful vibratory action of the Multiple's tamping blades thoroughly keys and consolidates the ballast particles without breakage and absolutely no damage to ties. Roadbeds thus achieved last longer, require less maintenance.

### **AT MUCH LOWER INVESTMENT COST**

The Jackson Multiple costs far less than any machine that can be considered comparable.

### **AND EXCEEDINGLY LOW MECHANICAL UPKEEP**

Rugged and reliable, maintenance of the machine is extraordinarily simple and inexpensive, and much of it is readily done in the field.

*Put a Jackson Multiple on your own track on our attractive Rental-Purchase Plan and prove these facts to your own satisfaction.*



SOLD IN U.S.A. BY

**ELECTRIC TAMPER & EQUIPMENT CO.**  
LUDINGTON MICHIGAN

CANADIAN REPRESENTATIVES: WINSTON, REDLAND, LIMITED — WINNIPEG, MANITOBA

## Current Statistics

Operating revenues, four months	
1954 .....	\$ 3,030,657,088
1953 .....	3,501,247,731
Operating expenses, four months	
1954 .....	\$ 2,455,506,101
1953 .....	2,653,454,001
Taxes, four months	
1954 .....	\$ 297,338,860
1953 .....	422,069,552
Net railway operating income, four months	
1954 .....	\$ 206,661,676
1953 .....	353,248,469
Net income, estimated, four months	
1954 .....	\$ 128,000,000
1953 .....	262,000,000
Average price railroad stocks	
June 22, 1954 .....	66.71
June 23, 1953 .....	64.46
Carloadings, revenue freight	
Twenty-four weeks, 1954....	14,940,675
Twenty-four weeks, 1953....	17,295,704
Average daily freight car surplus	
June 19, 1954 .....	82,109
June 20, 1953 .....	18,709
Average daily freight car shortage	
June 19, 1954 .....	893
June 20, 1953 .....	4,109
Freight cars delivered	
May 1954 .....	3,173
May 1953 .....	6,582
Freight cars on order	
June 1, 1954 .....	15,615
June 1, 1953 .....	57,345
Freight cars held for repairs	
April 1, 1954 .....	102,266
April 1, 1953 .....	94,896

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX AND BY THE ENGINEERING INDEX SERVICE. RAILWAY AGE INCORPORATES THE RAILWAY REVIEW, THE RAILROAD GAZETTE, AND THE RAILWAY AGE GAZETTE.

## Departments

Benchmarks & Yardsticks .....	56
Competitive Transport .....	10
Current Publications .....	46
Equipment & Supplies .....	23
Figures of the Week .....	10
Financial .....	24
Forum .....	49
Law & Regulation .....	7
Letters from Readers .....	30
New Facilities .....	24
Operations .....	12
Organizations .....	22
People in the News .....	9
Public Relations .....	9
Railway Officers .....	25
Rates & Fares .....	11
Securities .....	24
Supply Trade .....	23
Traffic .....	10
What's New in Products ....	43

## Week at a Glance CONTINUED

How the new rates look — a graphical picture of the East's new competitive schedules on paper and iron and steel products. 68

### BRIEFS

Eastern railroads won a major point in the \$250-million, anti-trust damage suit brought against them by a group of big-truck operators, when U. S. District Judge Thomas J. Clary upheld the railroad contention that legislative activity cannot furnish the foundation for an anti-trust case. The railroads, in other words, do have a constitutional right to present their views to a state legislature. David I. Mackie, chairman of the defendant Eastern Railroad Presidents Conference, hailed the decision as "a denial of the plaintiff truckers' basic claim."

Champion McD. Davis, president of the Atlantic Coast Line since October 15, 1942, and also president of a number of affiliated companies, will celebrate his 75th birthday on July 1.

Despite ICC suspension of piggyback tariffs, the Lackawanna, one of six roads affected by the suspension, is continuing to handle in trailer service, at standard rail rates, certain types of LCL freight. The Katy has announced its piggyback service is not affected by the ICC ruling and will start as scheduled on July 6, between Kansas City and Oklahoma City.

Railroad labor's program for liberalizing the Railroad Retirement and Railroad Unemployment Insurance Acts has cleared the House Committee on Interstate and Foreign Commerce. The program is embodied in a bill, H.R. 7840, which the committee has reported favorably to the House.

When the Western Pacific joined the western railroads' family fare plan June 16, the first tickets sold were to a family that included 11 children. They saved, the WP relates, almost \$500 over the former fares to the Wisconsin city to which they were headed.



Two Road Systems at Work!

By Hungerford



## E Edgewater Steel Company

PITTSBURGH, PA.

*Serving America's Railroads*

with  
ROLLED STEEL TIRES  
ROLLED STEEL WHEELS  
AND DRAFT GEARS

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting in your office and shop bulletin boards, or a cut for your company magazine, at cost.



## ICC Condemns Free-Ride Practices

Says IC Act is violated when transportation is given in exchange for advertising or publicity, or for contest prize

The Interstate Commerce Commission has found that the Interstate Commerce Act is violated when railroads provide free transportation on "revenue producing" passenger trains as "awards and in exchange for advertising or publicity."

The finding was made in the commission's report in the inquiry which it instituted in 1950—No. 30475, Unauthorized Free Transportation by Railroads. The report, by Commissioner Mitchell, was generally along lines of Examiner Edward L. Boisseree's proposed report in the case (*Railway Age*, March 8, page 15). Separate expressions—concurring and dissenting-in-part, respectively—came from Commissioner Elliott and Commissioner Freas, while Chairman Johnson subscribed to the Elliott views. Commissioner Cross was recorded as concurring "in the result" of the majority report.

The awards of free transportation which were condemned were those made to members of such organizations as the 4-H Clubs and Future Farmers of America, or prizes in connection with radio or television programs. The condemnation runs to awards "either in the form of railroad tickets or in money contributed solely for the purpose of paying for transportation over the lines of the contributor."

On the other hand, the commission found no violations in situations where railroads make lump-sum, unrestricted contributions to such organizations "even though some of the money is ultimately used in payment of trans-

portation charges." Also, they may give contest prizes other than transportation.

In condemning free transportation given in connection with publicity or advertising projects, the commission relied on court decisions which it summarized as having held that, "except in certain designated cases, a carrier cannot accept any compensation other than cash for interstate transportation."

Situations dealt with in the cited cases, the report added, were not distinguishable from "instances wherein carriers provide free transportation in exchange for publicity or advertising."

**Good Faith Generally**—The commission's appraisal of the evidence led it to conclude that the "vast majority" of railroads "have operated in good faith" with respect to the free-transportation matter. The report also said: "There is no indication of any attempt to procure, through use of free transportation, either particular traffic or particular favor from persons in positions of influence . . . There is no evidence of deliberate efforts . . . to pursue practices which were knowingly prohibited by the statute."

Meanwhile, the commission found that no violations of the act resulted from other free transportation involved in the inquiry. That includes free transportation granted to furloughed employees while they are working for railroad labor organizations; and that granted in connection with a road's insurance program and to representatives of special service companies, like Union News Company.

Commissioner Elliott's view, to

which Chairman Johnson subscribed, was that the prohibition against free transportation for publicity purposes should not necessarily extend to all such instances. He saw this situation as no different in principle than the carriage of representatives of special-service companies and insurance companies. The test, Mr. Elliott suggested, should be whether the carrier is "buying publicity, insurance or other services with transportation." If it is not, the free transportation "is not unlawful," he added.

Commissioner Freas would have found "that a railroad is acting 'as a private carrier or as a private business rather than as a common carrier' when it (a) makes contributions, whether used 'solely' for transportation or not, if such contributions are otherwise lawful, and (b) when it grants free transportation to people at the time engaged in advertising and publicity work for the grantor and in furtherance of which the trip is made necessary."

### Court Sends Vegetable, Fruit Case Back to ICC

The United States Supreme Court has sent back to the Interstate Commerce Commission the case wherein the commission approved railroad charges for unloading carload shipments of fruits and vegetables at New York and Philadelphia.

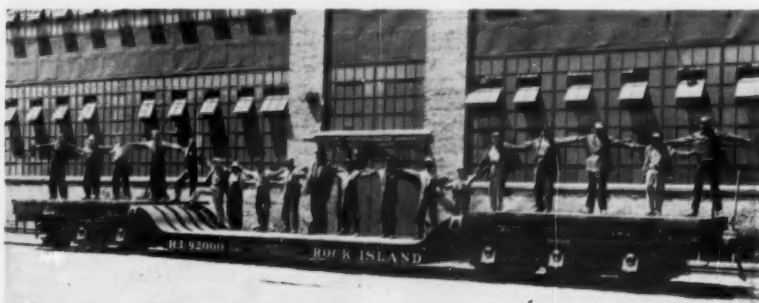
The court's decision, embodied in an opinion by Justice Frankfurter, said the commission "has not sufficiently spelled out the legal basis of its decision." It also suggested that the commission should make "more explicit findings" with respect to some of the questions raised (*Railway Age*, February 8, page 13).

### ICC Reorganizes More Bureaus

The Interstate Commerce Commission has created two new bureaus and a new Office of the General Counsel to take over the functions of four existing bureaus. The reorganization will become effective July 1.

The two new bureaus will be the Bureau of Inquiry and Compliance, and the Bureau of Rates, Tariffs and Informal Cases. They will supplant the bureaus of Inquiry, Traffic and Informal Cases, and also take over functions of the Section of Law and Enforcement, which is part of the present Bureau of Law.

That section's functions will be ab-



"JUST FOR SIZE," employees of the Rock Island's Blue Island (Chicago) shops try out a 58-ft depressed center

flat car completed at a cost of \$30,000. The car, which has a capacity of 125 tons, has a 21-foot depressed center.

## REIDY, WALTER AND COX WILL HEAD NEW ICC UNITS

The Interstate Commerce Commission on June 23 announced staff appointments made in connection with bureau reorganizations which become effective July 1.

E. M. Reidy, chief counsel and head of the Bureau of Law, will become general counsel, and A. C. Crenshaw, assistant chief counsel, will become associate general counsel.

A. H. Walter, director of the Bureau of Inquiry, will become director of the new Bureau of Inquiry and Compliance. J. A. Murray, associate chief counsel, will become assistant director of the new bureau and chief of its Section of Motor Carrier Enforcement. Chief of its Section of Rail, Water and Forwarder Enforcement will be D. H. Williams, who has been assistant director of the Bureau of Inquiry.

E. H. Cox, director of the Bureau of Traffic, will be director of the new Bureau of Rates, Tariffs and Informal Cases. Three assistant directors of this bureau will be: W. B. Hammer as chief of its Section of Rail Tariffs; C. H. Peck as chief of its Section of Motor Tariffs; and Arja Morgan as chief of its Section of Informal Cases. Mr. Morgan has been director of the Bureau of Informal Cases.

R. D. Hagerman and Robert Newel were reappointed as chairmen, respectively, of the Board of Suspension and Fourth Section Board.

sorbed by new Bureau of Inquiry and Compliance, which will include an Office of the Director, a Section of Rail, Water and Forwarder Enforcement, and a Section of Motor Carrier Enforcement. The present Bureau of Informal cases will become the Section of Informal Cases in the new Bureau of Rates, Tariffs and Informal Cases.

Functions of the Section of Library Services and the Section of Indices, which are in the present Bureau of Law, will go to the Office of the Secretary. Leaving these and functions of the Section of Law and Enforcement out of the new Office of the General Counsel, the commission's announcement said, "will relieve the general counsel of administrative responsibility over these units and permit him to devote full time to the legal work of the commission."

## ICC Modifies Tariff Rules

The Interstate Commerce Commission has served notice that it proposes to modify its rules governing the construction and filing of freight-rate tariffs of railroads, water carriers and pipe lines, and tariffs covering trans-

portation of freight on rail-motor, motor-water and rail-motor-water routes.

The proposed new rules would represent revisions of rules now published in the commission's Tariff Circular No. 20. Interested parties may file presentations with respect to them on or before October 1.

## ICC Will Appeal Court Rule on Temporary Rights

The Interstate Commerce Commission has announced that it will appeal to the United States Supreme Court, from the three-judge court decision which held the commission has no power to authorize temporary trucking operations beyond the 180-day term fixed for the initial grant of such authority by the Interstate Commerce Act's section 210a(b).

The three-judge court rendered its decision in the United States District Court for the District of Massachusetts. It clouded temporary operating authorities held by numerous motor carriers. (*Railway Age*, June 14, page 12.)

## Mail Trucking Bill Signed by President

President Eisenhower has signed recently enacted legislation to give the Postmaster General full discretion to substitute highway post office operations for railway mail services.

The legislation, which was embodied in a Senate bill (S.2773) removed from the 1940 mail-trucking act a restriction which prohibited establish-

ment of sorting-en-route trucking operations unless it were found that railroad facilities were inadequate or not available (*Railway Age*, March 8, 1954, page 12).

## Dual Benefits Act to Cost Pension Fund \$385 Million

Repeal of the Railroad Retirement Act's dual-benefits restriction will cost the retirement fund \$385 million over the next 50 years, and increase the fund's actuarial deficiency from 0.91% of payroll to 1.06%.

That's what President Eisenhower said in a statement issued June 16, when he signed the recently enacted legislation to effect the repeal. The legislation, embodied in House bill 356, was opposed by the railroads, but supported by railroad labor organizations.

The dual benefit restriction was added to the Retirement Act in 1951. It required that a railroad retirement pension or annuity based in whole or in part on untaxed railroad service before 1937 must be reduced if the annuitant was receiving or was entitled to receive old-age benefits under the Social Security Act.

President Eisenhower said that, in approving the repealer, he recognized the "sentiment of the Congress" that the restriction had not been "wholly satisfactory." The President went on to assert, however, that the repeal "creates several anomalies which should receive the attention of Congress at an early date."

**More Coordination Needed—"It**



ONE OF TWO SPECIALLY DESIGNED and constructed tank cars, each capable of transporting 100,000 lb of warm liquid chocolate, which recently were put into service by the Walter Baker Chocolate and Cocoa Division of General Foods Corpora-

tion. The cars, built at the Sharon, Pa., plant of General American Transportation Corporation, are regular-type tanks enclosed within outer water jackets. At unloading and loading points, hot water is circulated through the jackets, heating the chocolate.



is vital," the President added, "that retirement programs operated by the government be so arranged that they conform to a reasonable overall pattern. It should not be overlooked that today, under all of these systems, many opportunities arise for uneven, and sometimes windfall benefits, because these systems have not been adequately coordinated with the provisions of Old Age and Survivor's Insurance.

"The railroad retirement system... is essentially a staff pension plan. Its

better coordination with OASI, as has been done in the case of many private staff pension plans, would appear to be needed."

As to the cost of the repeal, the President suggested that Congress should give attention to "some equitable means" of providing the \$385 million. While he appraised the prospective increase in the retirement fund's actuarial deficiency as "not particularly great," Mr. Eisenhower advised that "it cannot prudently be disregarded."

Corporation; and Westinghouse Air Brake Company.

## People in the News

### Boilermakers to Have New Chief on July 1

Charles J. MacGowan, president of the International Brotherhood of Boilermakers & Blacksmiths, will resign July 1. Terming his resignation "final and irrevocable," Mr. MacGowan said he had continued in office against his personal desires, and that the "gigantic tasks ahead require the services of a younger and more rugged person."

William A. Calvin, one-time vice-president and more recently assistant to president, has been named as Mr. MacGowan's successor. Mr. Calvin was elected a vice-president of the boilermakers' union in 1933 after having held several offices in the local lodge on the Seaboard Air Line at Jacksonville, Fla. He also has served as secretary-treasurer of the American Federation of Labor's metal trades department; on the War Production Board's shipbuilding commission; on the National Defense Mediation Board; on panels of the National War Labor Board, and as labor specialist with the National Production Authority. On December 1, 1952, he assumed his most recent position as assistant to president of the union.

### Mitchell Succeeds Johnson As Chairman of ICC

Commissioner Richard F. Mitchell has been elected by the Interstate Commerce Commission to be its chairman for a one-year term beginning July 1. He will succeed J. Monroe Johnson.

## Public Relations

### Suppliers to Aid Railroads

Newly organized committee plans campaign "to increase public understanding of the industry"

To explain "to the public in general and to businessmen in particular" the job "which railroad managements have done and are doing in spite of hurdles which interfere with management's reasonable freedom to manage," is the basic objective of a newly formed "Committee of Railroad Suppliers."

**Doing a Good Job**—As its initial goal, the committee plans to emphasize the fact that railroads "are doing an outstanding job" of modernization and technological progress in spite of problems and handicaps "which tend to interfere with intelligent business management." Toward that end, it has announced a campaign consisting of the following steps:

(1) A luncheon at the Plaza Hotel, New York, on June 30, at which Benjamin F. Fairless, chairman of the United States Steel Corporation, "will make a penetrating examination into the state of the railroad industry from a businessman's point of view";

(2) Insertion, in "newspapers across the country," of a full-page advertisement planned "to show railroad management in a more realistic light than [it] is usually seen";

(3) Distribution to business and financial leaders of a booklet, "A Look Beyond the Station," which "develops and amplifies the analysis of railroad progress and problems suggested in the advertisement"; and

(4) An effort to get railroads and their suppliers to cooperate with the committee in bringing to public attention technological developments now in service.

The advertisement and booklet were described on pages 23-26 of last week's *Railway Age*.

**Executive Committee**—The new suppliers' committee is operating under direction of an executive committee which consists of Charles J. Symington, chairman of the board, Symington-Gould Corporation; Paul Renshaw, chairman of the board, General Railway Signal Company; Maurice N. Trainer, vice-chairman, American Brake Shoe Company; E. O.

Boshell, chairman of the board and president, Westinghouse Air Brake Company; Norman C. Naylor, chairman of the board, Union Asbestos & Rubber Co.; and Bernard Peyton, president, New York Air Brake Company.

Companies participating in the opening phase of the overall campaign are: American Brake Shoe Company; American Locomotive Company; American Steel Foundries; Baldwin-Lima-Hamilton Corporation; Birdsborg Steel Foundry & Machine Co.; Buckeye Steel Castings Company; Buffalo Brake Beam Company; Evans Products Company; General Electric Company; General Railway Signal Company; General Steel Castings Corporation; Magnus Metal Corporation; National Malleable & Steel Castings Co.; New York Air Brake Company; Pittsburgh Steel Foundry Corporation; SKF Industries, Inc.; Scullin Steel Company; Symington-Gould Corporation; Waugh Equipment Company; Westinghouse Electric

### Actual and Estimated Gross Capital Expenditures of Class I Line-Haul Railways—First Nine Months of 1953 and 1954

Period	Number of roads	Road Thousands	Equipment Thousands	Total Thousands	Per cent of Road	total Equipment
Actual 1953:						
1st quarter .....	130	\$79,644	\$220,066	\$299,710	26.6	73.4
1st nine months ....	130	285,765	646,362	932,127	30.7	69.3
Actual 1954:						
1st quarter .....	130	72,633	167,460	240,093	30.3	69.7
Estimated 1954:						
2nd quarter .....	126	85,196	149,364	234,560	36.3	63.7
3rd quarter .....	126	92,330	77,355	169,685	54.4	45.6
Total:						
1st nine months						
1954, actual and estimated .....	..	250,159	394,179	644,338	38.8	61.2
Per cent of decrease:						
1st quarter 1954 vs. 1953 .....	..	8.8	23.9	19.9	..	..
1st nine months 1954 vs. 1953 .....	..	12.5	39.0	30.9	..	..

<sup>1</sup>Estimate not furnished by four roads

—From the June 14, 1954, issue of "Monthly Comment," published by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.



**WILLIAM G. ATWELL** has been appointed assistant to chairman of the Federation for Railway Progress at New York, and will be responsible for corporate relations of the federation. For the past 10 years Mr. Atwell has been associated with the American Lumbermen's Mutual Insurance Company.

who will remain a member of the commission.

Commissioner Mitchell, who is in his 65th year, has been a member of the commission since 1947. A Democrat, he was appointed by former President Truman, and his present term will expire December 31, 1956. Mr. Mitchell was formerly chief justice of the Supreme Court of Iowa.

## Competitive Transport

### Revenue from Top Rail Fares Near Air Average

Last year's average revenue per passenger-mile of scheduled domestic air lines was only about eight mills more than the railroad average for parlor and sleeping car service, plus the Pullman Company's average.

The air line figure was 5.45 cents and the railroad-Pullman average was 4.68 cents. The latter included the railroads' average of 3.38 cents from parlor and sleeping car fares and the Pullman Company's average of 1.304 cents.

These and other like data were in the latest "Monthly Comment" of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics.

**1952 Figures**—The railroad-Pullman average compared with a 1952 figure of 4.597 cents, which included a rail average of 3.35 cents and a Pullman average of 1.247 cents. The air lines' 1952 average was 5.55 cents.

"Air coach" services offered by the air lines last year yielded average revenue per passenger-mile of 4.12

cents, down slightly from 1952's 4.18 cents. Family travel fares of the trunk air lines yielded 4.6 cents, up 1½ mills from 1952's 4.45 cents. Comparable data was not available for non-scheduled air lines which, as the bureau put it, "have assumed some importance in recent years."

Railroad coach revenues, other than commutation, averaged 2.53 cents per passenger-mile in 1953, the same as in 1952. The average of this and the 3.38-cent first-class fare mentioned above was 2.78 cents. The 1953 average for intercity buses was 2.04 cents.

### NITL Wants Hearing On Contract Truck Law

The National Industrial Traffic League has asked the Interstate Commerce Commission to hold public hearings on the question of whether the commission should advise Congress to amend those provisions of the Interstate Commerce Act which relate to contract trucking.

The commission is receiving presentations with respect to the question in its Ex Parte No. MC-46 inquiry. It recently gave interested parties additional time (until July 15 instead of June 15) to make such presentations.

The NIT League presentation did not offer the commission any advice beyond the suggestion that hearings be held. "If hearings are considered impractical," it asked that the deadline for presentations be set back to December 1.

The questions involved "are highly controversial," the league also said. It added that it was not now in position to make any definite recommendation; and that the commission "is not fairly in a position to make specific recommendations to the Congress... without long and intensive hearings."

## Traffic

### Piggyback Tariff Case Set for Hearing July 27

The Interstate Commerce Commission has set July 27 as the date for the beginning of public hearings in connection with its investigation of suspended tariffs whereby six railroads had proposed to inaugurate trailer-on-flat-car services this month. The hearings will also embrace a complaint filed by the Illinois-Minnesota Motor Carriers' Conference, alleging that the Chicago & North Western has been conducting T-O-F-C operations without requisite ICC authority.

The commission suspended the tariffs for seven months (*Railway Age*, June 21, page 7). This inquiry is docketed as I. & S. No. 6214, not to be confused

with the general piggyback case (No. 31375), in which the argument scheduled for this week will deal with 12 "basic and fundamental" questions relating to T-O-F-C operations (*Railway Age*, May 3, page 9).

## Figures of the Week

### Freight Car Loadings

Loadings of revenue freight in the week ended June 19 totaled 707,208 cars, the Association of American Railroads announced on June 24. This was an increase of 9,625 cars, or 1.4%, compared with the previous week; a decrease of 105,370 cars, or 13%, compared with the corresponding week last year; and an increase of 63,239 cars, or 9.8%, compared with the equivalent 1952 week.

Loadings of revenue freight for the week ended June 12 totaled 697,583 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, June 12			
District	1954	1953	1952
Eastern .....	111,023	134,907	110,285
Allegheny .....	127,251	162,443	102,940
Pacahantos .....	50,954	58,271	49,741
Southern .....	116,221	124,280	119,240
Northwestern ..	116,867	130,289	69,039
Central Western ..	117,276	125,384	120,276
Southwestern ..	57,991	61,678	59,321
<b>Total Western Districts .....</b>	<b>292,134</b>	<b>317,351</b>	<b>248,836</b>
<b>Total All Roads .....</b>	<b>697,583</b>	<b>797,252</b>	<b>631,042</b>
Commodities:			
Grain and grain products .....	53,909	53,432	51,740
Livestock .....	5,933	7,441	6,878
Coal .....	110,616	131,778	113,691
Coke .....	7,333	13,990	4,585
Forest products .....	43,080	46,182	44,625
Ore .....	71,484	93,255	18,164
Merchandise (e.l.) .....	60,818	64,533	69,038
Miscellaneous ..	344,410	384,641	322,321
<b>June 12 .....</b>	<b>697,583</b>	<b>797,252</b>	<b>631,042</b>
<b>June 5 .....</b>	<b>612,315</b>	<b>775,489</b>	<b>684,247</b>
<b>May 29 .....</b>	<b>689,292</b>	<b>786,755</b>	<b>696,860</b>
<b>May 22 .....</b>	<b>681,967</b>	<b>769,618</b>	<b>761,705</b>
<b>May 15 .....</b>	<b>677,581</b>	<b>779,805</b>	<b>754,448</b>
Cumulative total, 24 weeks .....			
	14,940,675	17,295,704	17,245,476

**In Canada.**—Carloadings for the seven-day period ended June 7 totaled 72,841 cars, compared with 84,684 cars for the previous 10-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
<b>Totals for Canada:</b>		
June 7, 1954 .....	72,841	26,541
June 7, 1953 .....	74,476	29,868
<b>Cumulative Totals</b>		
June 7, 1954 .....	1,492,306	639,768
June 7, 1953 .....	1,659,332	717,471

### It Cost \$1.38 to Get \$1 From 1953 Dining Service

Class I railroads incurred direct expenses of \$1.38 for each \$1 of revenue realized from their dining and buffet services in 1953.

This was reported in the "Monthly Comment" of the Bureau of Transport

Economics and Statistics of the Interstate Commerce Commission. The expense figure (the exact amount was \$1.378) was up 4 mills from 1952.

The bureau gave comparative 1953 and 1952 figures for the 21 roads which reported 1953 diner and buffet revenues in excess of \$1 million. The expenses-to-revenues ratios shown in this compilation for last year ranged from the New Haven's 103.9 to the Union Pacific's 182.1. Those two roads were also in the extreme positions in 1952, when their respective ratios were 102.2 and 176.

The bureau pointed out that the direct expenses entering the calculations "do not include the cost of transporting dining cars nor any overhead costs incident to the service."

### Pullman Passenger Spends 8 Times Average Coach Fare

The average Pullman traveler paid the railroads and Pullman Company eight times as much as the average coach passenger paid the railroads in 1953. The figures were \$21.28 and \$2.66, respectively, commutation fares being excluded.

They were given, along with comparative data for air lines and bus companies, in "Monthly Comment," the review issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

The coach figure of \$2.66 represented an increase of 166% above the \$1 which was the railroad's average revenue per coach passenger in the year 1939.

The parlor and sleeping car average of \$21.28 represented an increase of 69.2% above 1939's \$12.58.

Air line figures were not available for 1953, but 1952 average revenue per passenger for scheduled, certificated, domestic air carriers was \$27.81, an increase of 38.4% above 1939's \$20.09. The average of Class I intercity bus lines was up 31.8%—from 1939's 88 cents to 1953's \$1.16.

"The figures," the bureau said, "have been influenced by changes not only in the general level of rates . . . but also by special rates, such as air coach, rail excursion, etc., and by changes in types of Pullman space occupied, among other factors. Lengths of trip per passenger per carrier, 1939-1953, have increased by 30% for air, by 88% for rail coach, but by only 4% in parlor and sleeping cars."

## Rates & Fares

### Western Roads File Divisions Complaint

Western railroads have filed with the Interstate Commerce Commission a complaint seeking more favorable divisions of joint rates to which they are parties in connection with their handling of traffic moving between Eastern and Midwestern territories and Transcontinental territory.

Eastern roads had previously filed a complaint assailing divisions they receive on the same traffic. It was docketed as No. 31503, and the complaint of the western lines has been added to that docket (*Railway Age*, May 3, page 8.)

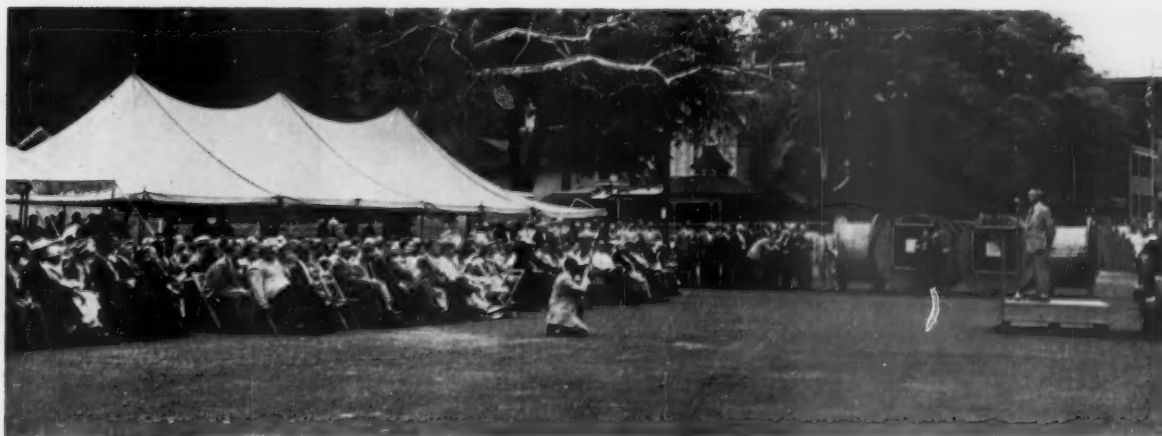
### Army Fare Complaint Gets Final ICC Dismissal

Affirming a 1953 report by its division 2, the Interstate Commerce Commission has dismissed an Army complaint that the Pullman Company's charges for berth accommodations in

## KERITE COMPANY OBSERVES ITS CENTENNIAL

The Kerite Company, cable manufacturer long associated with the railroads as a supplier, celebrated its centennial June 10 at its manufacturing plant in Seymour, Conn.—where 100 years ago, it began operations. At the June 10 celebration, there was a luncheon, attended by top officers from virtually every industry in Connecticut's highly industrialized Naugatuck Valley region, and by local and state political leaders. At a short ceremony following the luncheon (below) there were brief talks by President C. R. R. Harris;

by Vice-Presidents Franklin Harris, A. H. Smith and Theodore Rudd, and by local representatives of some of the industries Kerite serves. As shown in the smaller picture at the right, President Harris (left), presented stock in the company to its oldest currently active employee, Gustave Kashel (right). Stock also was given to 10 other employees having over 40 years' service. The company's history was reviewed in a special centennial booklet and was the subject of a feature article in *Railway Age* May 3, page 38.





standard and tourist sleeping cars are too high.

The case was No. 31046, and the commission's finding was that the assailed charges had not been shown to be unjust or unreasonable.

### ICC Ends Ex-Lake Grain Case, Leaving Parity Setup

The Interstate Commerce Commission has closed the Ex-Lake Grain case by leaving the rate situation as it has been since parity for competing ports was established in January 1952 as a result of a decision of the United States Supreme Court.

The rates involved are those on grain moving from Buffalo, N. Y., and Oswego to Atlantic ports for export.

The Supreme Court's decision set aside a commission order which had rejected parity proposals and ordered maintenance of the former port differentials.

The differentials had been in favor of Philadelphia and Baltimore. The adjustment resulting from the court decision removed them and extended the Philadelphia-Baltimore rate basis to New York, Albany, N. Y., Boston, Mass., and Portland, Me. Railroads serving Philadelphia and Baltimore thereupon published rate reductions in an undertaking to re-establish the differentials. Roads serving the northern ports then countered with tariffs designed to meet such cuts and thus maintain parity. All these tariffs were suspended by the commission and investigated in the proceeding out of

which the present report came, with its finding that parity should stay.

## Operations

### Cresting Floodwaters Peril Iowa Rails

Heavy rains last week caused spot flooding conditions in Iowa and southern Minnesota and resulted in several interruptions to rail services in those areas.

Perhaps the hardest hit is the Fort Dodge, Des Moines & Southern which (Continued on page 21)

## NEW YORK CENTRAL EXECUTIVE CHANGES

Alfred E. Perlman, newly elected president and chief executive officer of the New York Central (*Railway Age*, June 21, page 7), was born in St. Paul, Minn., November 22, 1902. A graduate of Massachusetts Institute of Technology and of Harvard School of Business Administration, Mr. Perlman entered railroad service in July 1923 as a field construction draftsman with the Northern Pacific. His entire subsequent career has been spent in the railroad industry.

In May 1935, after a period as consultant for the Railroad division of the Reconstruction Finance Corporation, Mr. Perlman joined the Burlington as an assistant engineer, maintenance of way, in charge of reconstruction of that road's Colorado, Nebraska and Kansas lines, which had been damaged by floods. He went to the Denver & Rio Grande Western in May 1936 as maintenance-of-way engineer and was promoted to chief engineer in May 1941. Seven years later he became general manager and in 1952 was elected executive vice-president, the position he held before he assumed the NYC presidency.

Robert R. Young, chairman of

Alleghany Corporation and the NYC's first chairman since the office was briefly held by Gustav Metzman—now chairman and president of the American Railway Car Institute—from August 1, 1952, to December 31, 1952, was born in Canadian, Tex., February 14, 1897. He left the University of Virginia in 1916 to join the du Pont interests, serving in a financial capacity until 1922, when he joined General Motors Corporation. In 1929 he entered the investment field, organizing his own stock exchange firm three years later. Early in 1937, Mr. Young and Allan P. Kirby, Alleghany president and now one of the NYC's new directors, secured control of Alleghany and became the leading figures in the Van Sweringen railroad "empire."

Mr. Young—who likes to describe himself as a "security analyst"—was elected chairman of the Nickel Plate in May 1938, and of the Chesapeake & Ohio in April 1942. Messrs. Young and Kirby resigned from the C&O board last January 19, and became "free to acquire control of another carrier" (*Railway Age*, January 25, page 12).

Mr. Young and Robert J. Bowman, then C&O president, had, in April 1947, requested Interstate Commerce Commission authority to become NYC directors, while retaining their C&O affiliations. Mr. Metzman, then NYC president, had invited them to join the board in response to a C&O request that its ownership of NYC stock be represented thereon. The Bowman-Young petition was rejected by the commission, which also refused a request that the C&O's NYC shares be released from the requirement under which they were deposited with a bank as independent voting trustee.

William White, who preceded Mr. Perlman as NYC president, was elected to that office August 1, 1952. Born in Midland Park, N. J., February 3, 1897, Mr. White entered railroading in August 1913 as a clerk in the office of the Erie's auditor of freight accounts.

Appointed vice-president and general manager of the Virginian in May 1938, he was elected president of the Delaware, Lackawanna & Western January 1, 1941, from which position he resigned to become the Central's president.



Alfred E. Perlman



Robert R. Young

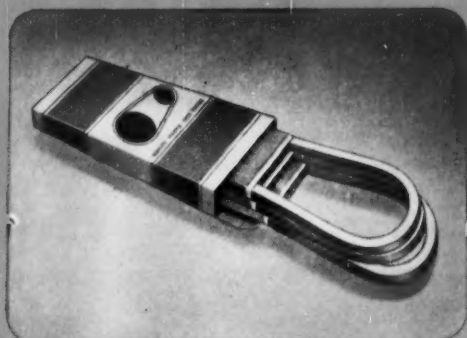


William White



he saved pennies on a belt

but burned up \$33,000



**Y**OU'RE always ahead when you buy General Motors locomotive replacement parts from Electro-Motive. With V-belts, as with all our other top-quality parts, our prices are usually as low as you'll find anywhere.

But maybe you think belts are belts and the cheaper the better. One railroad had that idea. They bought inferior belt sets to drive cooling fans for their traction motors and saved a few cents per belt. But the belts stretched in service and six traction motors burned up. Total loss came to \$33,000—not including duplicated work and lost locomotive time.

Electro-Motive replacement parts are made of the same materials and pass the same rigid inspection as parts used in new units. And scientific packaging gives better parts protection and lower costs.

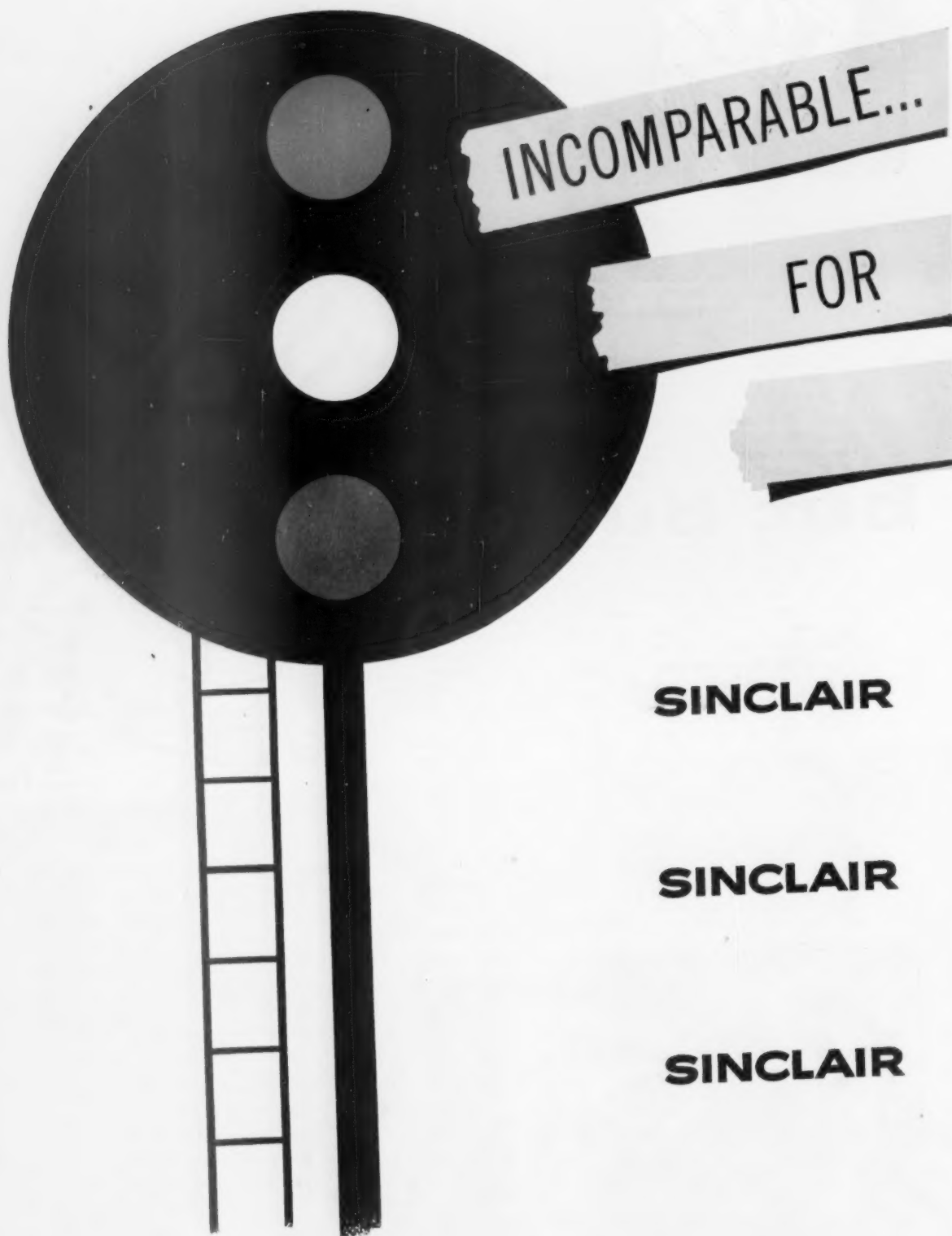
So why take a chance? Electro-Motive's parts performance is warranted for 100,000 miles or one-year's service, whichever occurs first. The pennies you may save can cost you dollars. In this case they cost at least \$33,000.

ELECTRO-MOTIVE DIVISION

**GENERAL MOTORS**  
LOCOMOTIVES

GENERAL MOTORS

In Grange, Illinois—Home of the Diesel Locomotive • In Canada: GENERAL MOTORS DIESEL, LTD., London, Ontario



**SINCLAIR**

**SINCLAIR**

**SINCLAIR**


**SINCLAIR REFINING**

June 28, 1954 RAILWAY AGE





**SUPERIOR**



**RAILROAD LUBRICATION**

## **GASCON DIESEL OIL**

Sinclair GASCON® Diesel Lubricating Oils are used and preferred by more than 100 American railroads. Such a record is as outstanding as the quality of the oils themselves.

## **JET LUBRICANT TM**

More than 70 railroads now use JET. Three years of heavy-duty testing give on-the-job proof that it is best for Diesel traction motor gears.

## **LITHIUM ROLLER BEARING GREASE**

In test after test, this lubricant for Diesel locomotive and car journal roller bearings is proving markedly superior.

**COMPANY** RAILWAY SALES  
NEW YORK • CHICAGO • ST. LOUIS • HOUSTON

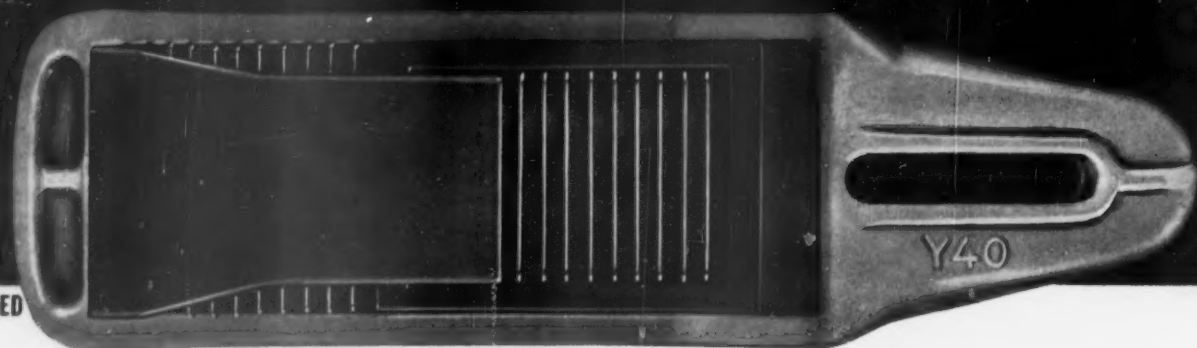
# NOW

## a **WAUGHMAT**

*Twin Cushion*

that is interchangeable  
with any friction draft gear

**fits any A.A.R. standard yoke**



A.A.R. APPROVED

and because it is **PRECOMPRESSED**

**H**ERE is the rubber draft gear that railroads have been waiting for . . . a rubber draft gear that is completely interchangeable with any standard size friction draft gear. It may be applied in any standard yoke — rigid shank, swivel shank, tightlock, horizontal, with one standard follower block.

The gear is delivered precompressed ready for application.

With all these application advantages and resulting savings in maintenance, the Waughmat Single Action Twin Cushion has the characteristic superiority of other TWIN-CUSHIONS — no metal to metal contact — no solid point.

## **WAUGHMAT**

**SINGLE ACTION**

*Twin Cushions*

Trade Mark

WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis  
Canadian Waugh Equipment Company, Montreal

it is easily applied  
to the car without  
the use of special  
jigs or fixtures,  
or special set-up

OFFICIAL CAPACITY  
AT NOMINAL TRAVEL

**28,500** ft. lbs.

AVAILABLE CAPACITY  
WITHOUT METAL CONTACT

**51,600** ft. lbs.

### 3 COST-SAVING REASONS

*Why more and more  
railroads are specifying  
Transite® Pipe*

### FOR WATER MAINS

- 1. Low Installation Costs:** Water lines are quickly assembled . . . pipe crews lay more pipe per day . . . when Transite® Pressure Pipe is used for water lines—because Transite is light, easy to handle . . . because joints are easily made and readily checked during assembly . . . because deflections up to 5 degrees at each joint permit laying pipe around curves without special fittings.
- 2. Low Operating Costs:** Transite Pipe has a smooth interior surface that offers minimum resistance to flow of water. Furthermore, its initial high flow capacity cannot be reduced by tuberculation—the internal corrosion that reduces the flow capacity of ordinary water pipe. This helps assure high pressures and an ample volume of water for future requirements . . . helps keep pumping costs low.
- 3. Low Maintenance Costs:** Transite Pressure Pipe is made of asbestos and cement by a special Johns-Manville process that develops exceptional resistance to corrosion. This has been substantiated in literally thousands of water lines and is an index of the long service to be expected of Transite Pipe. In addition, Transite's tight, flexible joints guard against costly underground leakage—further assurance of low water-line maintenance over the years.



In this Atlantic Coast Line R.R. station and shop area, Sandford, Fla., Transite Pipe water mains cross under four main-line tracks at two points. Each line terminates at a hydrant and has taps and reducers to smaller pipes. Illustrations above show Atlantic Coast Line's "The West Coast Champion" pulling in to the new station and a view of the car shed and shop facilities at Sandford.

For further information about Transite Pipe, get in touch with your J-M Representative, or write for Brochure TR-11A, Johns-Manville, Box 60, New York, N. Y.



## Johns-Manville

96 YEARS OF SERVICE  
TO TRANSPORTATION

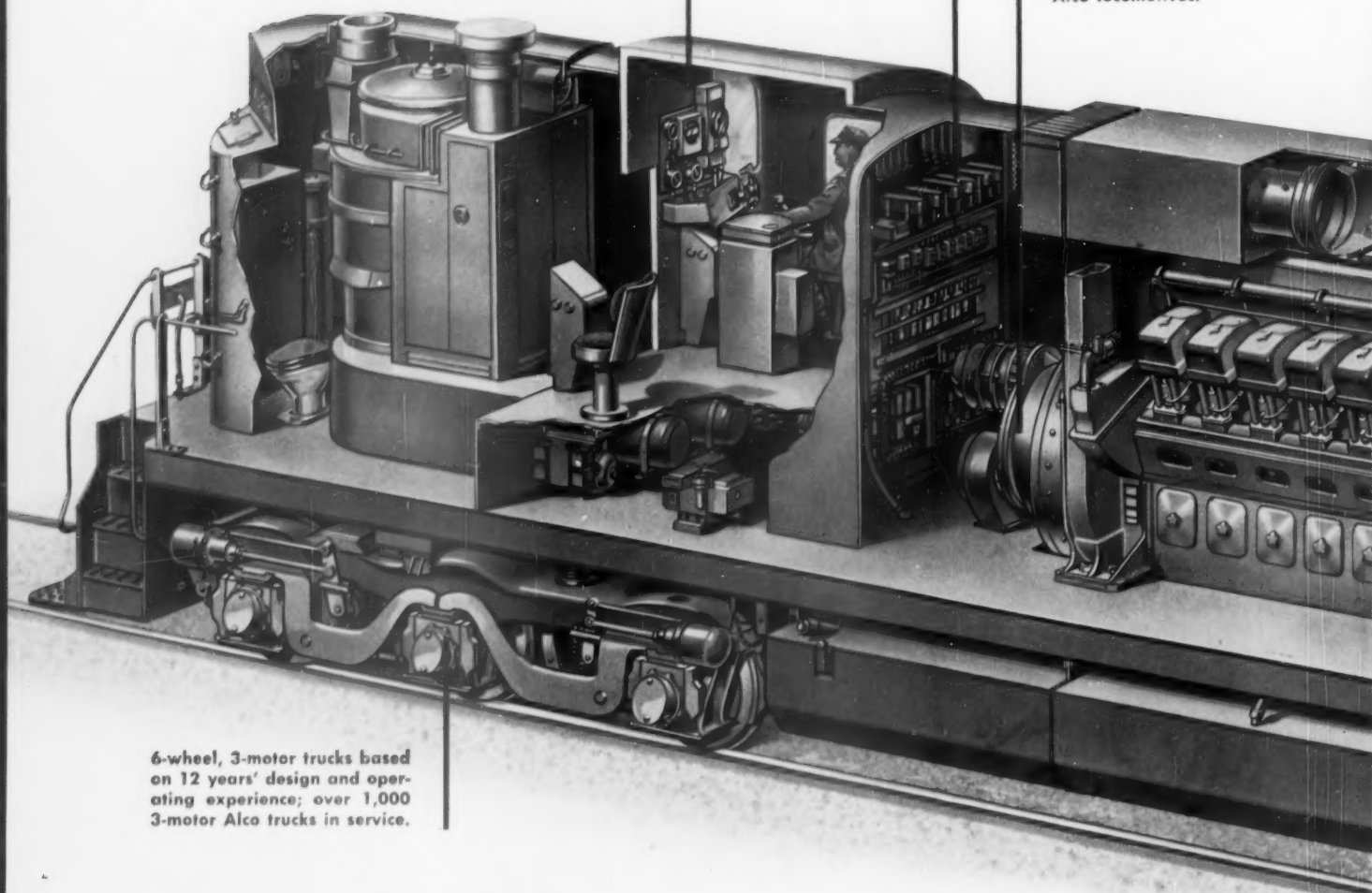


# Features of Alco's New "2-for-3" Locomotive

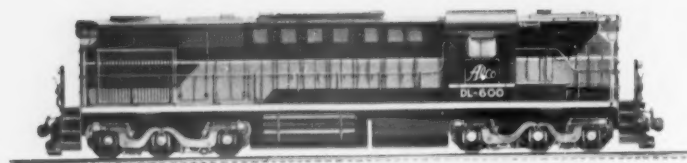
Roomy cab designed for comfort and safety of crew has excellent visibility and low noise level.

Control panel arranged for instant accessibility.

Traction generator with higher current capacity, but interchangeable with generators on other Alco locomotives.



6-wheel, 3-motor trucks based on 12 years' design and operating experience; over 1,000 3-motor Alco trucks in service.



**2 DL-600's will normally do what 3 4-motor units will do...with these advantages:**

- substantially less original investment — *two* units to buy instead of *three*
- substantially less operating cost — *two* units to operate instead of *three*
- substantially less maintenance cost — *two* units to maintain instead of *three*
- *plus:* 15% shorter length . . . higher continuous tractive effort . . . 25% more dynamic braking effort . . . same number of tractive motors (12) in only 4 trucks
- with greater versatility

For complete details on this latest example of Alco's better motive power for greater earning power, contact your nearest Alco locomotive representative.

**ALCO**

**AMERICAN**

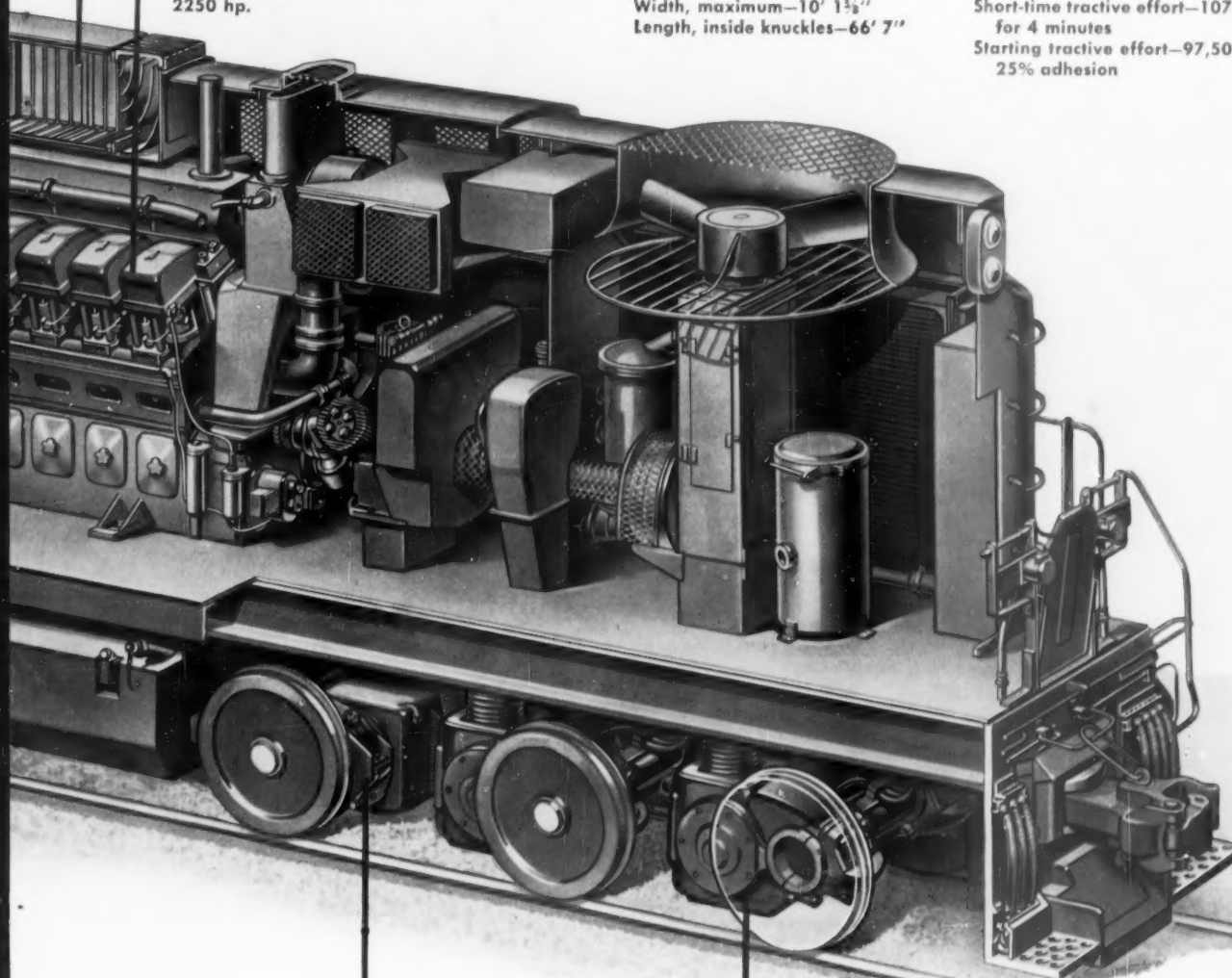
# Provide More Power—Do More Work—At Lower Cost

Dynamic braking (heat dissipator unit) provides 3400 hp, maximum braking power . . . highest available anywhere.

Improved Alco Model 244 16-cylinder V-type diesel engine with new water-cooled turbosupercharger—conservatively rated at 2250 hp.

**Dimensions:**  
Maximum weight 390,000 lb  
Minimum weight 325,000 lb  
Height, maximum—14' 8½"  
Width, maximum—10' 1½"  
Length, inside knuckles—66' 7"

**Continuous tractive effort:**  
65 mph gearing—79,500 lb  
75 mph gearing—69,800 lb  
80 mph gearing—65,200 lb  
**Short-time tractive effort—107,400 lb for 4 minutes**  
**Starting tractive effort—97,500 lb at 25% adhesion**



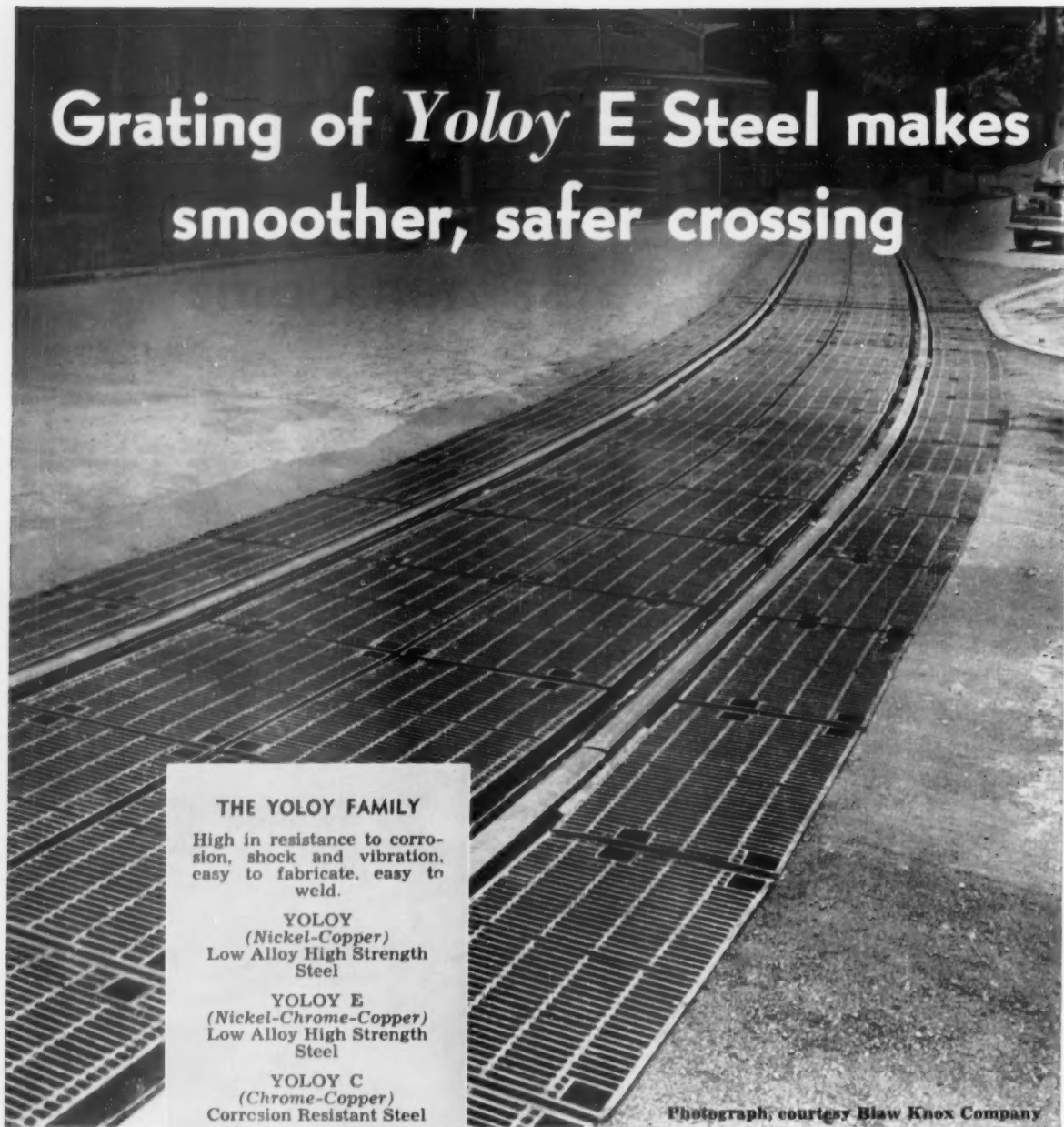
Clasp brakes provide positive action.

Traction motors — the same rugged, high output motors installed on all Alco road locomotives—produce highest continuous and short-time tractive effort of any diesel electric unit.

## LOCOMOTIVE COMPANY

Sales and  
Service Offices  
in Principal  
Cities

# Grating of *Yoloy E* Steel makes smoother, safer crossing



## THE YOLOY FAMILY

High in resistance to corrosion, shock and vibration, easy to fabricate, easy to weld.

### YOLOY

(Nickel-Copper)

Low Alloy High Strength Steel

### YOLOY E

(Nickel-Chrome-Copper)

Low Alloy High Strength Steel

### YOLOY C

(Chrome-Copper)

Corrosion Resistant Steel

Photograph, courtesy Blaw Knox Company

# Youngstown



● Crossings of Yoloy E "Electro-forged"\* steel grating provide a sure means to increased safety and improved appearance of railroad property - an investment that promotes public good will. For full data on the Yoloy family of steels phone or write our nearest District Sales Office.

\*Registered—Blaw Knox Company

## THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of  
Carbon, Alloy and Yoloy Steel

General Offices: Youngstown, Ohio - Export Office: 500 Fifth Avenue, New York 36, N. Y.

SHEETS - STRIP - PLATES - STANDARD PIPE - LINE PIPE - OIL COUNTRY TUBULAR GOODS - CONDUIT  
AND EMT - MECHANICAL TUBING - COLD FINISHED BARS - HOT ROLLED BARS - BAR SHAPES - WIRE -  
HOT ROLLED RODS - COKE TIN PLATE - ELECTROLYTIC TIN PLATE - RAILROAD TRACK SPIKES



## Operations

(Continued from page 12)

is without electric power due to high water and a consequent boiler explosion in the company-owned power plant. This plant furnishes power to many on-line industries as well as providing locomotion power for main line freight and passenger services. Diesel locomotive units were handling some services in the Fort Dodge-Webster City switching district and also between Boone and Des Moines as this issue went to press. Elsewhere the road was out of service for both freight and passenger traffic. A spokesman said that it might be a month before electric power could be restored and that diesel locomotives would probably be rented to carry on service in the interim.

Several secondary lines were reported out of service by major carriers. The Burlington experienced some delays to main line freight and passenger trains between Chicago and the Twin Cities on June 22 and reported one secondary line out of service for eight hours. A spokesman said that "loins were girded" for a crest expected at Ottumwa on Friday, June 25. Some yard flooding and minor traffic disruptions were reported by the Chicago Great Western between Clarion and Mason City. The biggest interruption, a spokesman said, was between Red Wing, Minn., and Cannon Falls, where the Rochester branch was out of service for several days. The Minneapolis & St. Louis reported backwaters of the Des Moines river at rail level at several points but no interruptions to traffic.

The Des Moines Union said it had lost no equipment nor had any freight been damaged although a further rise of 1½ ft was being awaited. Floating debris was causing some concern for the main bridge in Des Moines but

traffic thus far was unimpaired. The company was assisting in the evacuation of equipment and products of a number of low-lying manufacturing plants. Cars were furnished to remove meat from packing plants where flooded basements raised the risk of contamination. The Rock Island, barring a dike failure at Des Moines, anticipated no trouble there. However, water was expected to rise over the rails of the Minneapolis-Kansas City line at one point and sandbagging was in progress. The crest was expected to reach the road's Chicago-Kansas City line at Eldon late this last weekend and a spokesman indicated that trains might have to be rerouted to avoid that point during the crest period.



### Dynamic Braking for Downhill Ore Haulage

The 40-ton, 300-hp haulage locomotive shown above is one of three operated by the Consolidated Mining & Smelting Co. at Trail, B.C. Designed and built by the General Electric Company, these 250-volt electrics have a drawbar pull of 20,000 lb. and are especially equipped for an unusual braking job.

The ore must be taken from the mine downgrade to the smelter, but, for purposes of safety, the train must be kept within a maximum speed of 9.5 mph. To do this, not only was dynamic braking installed, but the locomotives were made heavy as well. Another special feature of the locomotive is the heated operator's cab for severe winter conditions.

### It Costs to Run Freight Trains Faster

The importance of increased fuel and labor costs to railroad management in evaluating whether the benefit to be gained by operating shorter, faster freight trains will offset the increased cost thereby incurred in those two items was brought out by Robert

Aldag, manager of the sales engineering department of Fairbanks, Morse & Co. in a recent talk before the American Power Conference in Chicago.

Diesel fuel costs in 1953 were 16 cents per 1,000 freight gross ton-miles. If freight trains were substantially cut in size, and speeded up, this figure would approach the passenger-train fuel cost after subtracting that required for train heating, turning axle-driven generators and other items applicable solely to passenger operation. This corrected passenger fuel cost is more than twice that of freight on a ton-mile basis. Furthermore, ton-mileage produced per train-hour in passenger service is only half that in freight service, and therefore a reduction in gtm per train-hour could be expected if faster freight-train operation were to be attained by reducing tonnage.

Up to the present, the judgment of railroad management has favored an average freight-train size and speed that requires a locomotive that develops between 13 and 14 hp per ton; with all weight on drivers; and with a continuous tractive force up to 21% of weight. This combination gives sufficient weight for adhesion in starting and sufficient horsepower to attain the road speeds felt desirable.

Switch locomotives have 10 hp or less per ton and a tractive force equal to 14% of weight, while passenger locomotives develop some 20 hp per ton and have a continuous tractive force equal to 15% of weight on drivers. The low horsepower of the switcher and the low continuous tractive force of the passenger unit limit these two locomotives to the service for which they were specifically designed. The combination freight-passenger locomotive, on the other hand, can do any of the three jobs, because it has the right proportion for its own job and more than enough for the other two classes of work.

#### More Pull with Same Weight—

Mr. Aldag went on to describe how Fairbanks-Morse' Train Master meets the combination of the fundamentals for the three principal classes of railroad service, with its 12.8 hp per ton and its continuous tractive force of 21% of its weight, ratios found to be universally useful in all classes of rail service.

He also brought out an interesting feature of the truck design of this locomotive which produces 5% more adhesive tractive force per unit of weight on drivers than conventional locomotives. The Train Master truck has the bolster cast as an integral part of the truck frame rather than suspended from swing hangers. The initial purpose of this design was to permit application of three traction motors without impairing accessibility to the center motor.

Experience has shown, however, that an additional gain is made by eliminating the swing bolster. This minimizes weight transfer between axles, which is caused by gear tooth reaction,



**COMMUTERS ARE WARNED** by a new eye-level (and unequivocal) message stenciled next to vestibule steps of all Chicago & North Western suburban coaches.

motor support reaction, acceleration of the locomotive mass and the fact that the locomotive driving force and the train pulling force are in different planes. In the Train Master truck, the overall motor support reaction and drawbar reaction effect is opposite to that on conventional trucks, because of the mechanics of the running-gear design.

Mr. Aldag also pointed out that the Train Master induces 11% less vertical bending stress in rails, due to running gear proportions. Coupling this gain of 11% from reduced rail stress with the 5% more tractive force per unit of weight gives the equivalent of a track structure approximately 16% heavier.

## 54's Grain Can Be Handled, T-M-K Board Told

A car supply adequate to meet needs of this season's grain harvest, and cover sufficient for all wheat, seemed to be assured at the Trans-Missouri-Kansas Shippers Board meeting in Hutchinson, Kan., June 9-10.

"There will be difficulties as the result of a heavy storage carryover," said Donald E. Smith, director of the U. S. Department of Agriculture's commodity stabilization service, but added that the storage problems could be licked by "aggressive action" on the part of producers and warehousemen. R. E. Clark, manager of the AAR Car Service Division's Closed Car Section, said rail movement of the wheat harvest would be smooth—if adequate storage space is available.

During the two-day meeting, the board witnessed a new process for up-grading box cars that has been worked out by the Rock Island. It is an adaptation of a spray material heretofore used by the Navy to "mothball" ships and equipment. A detailed description of the process will appear in

an early issue of *Railway Age*, as noted on page 3 of the June 21 edition.

The board's LCL Committee report, presented by R. F. Treptow, traffic manager of the H. D. Lee Company, assailed carrier proposals aimed toward elimination of free pickup and delivery service on lcl shipments.

## Organizations

### "Advisory Boards Serve A Niche of Importance"

The Pacific Northwest Advisory Board doesn't believe the 13 regional shippers' boards are ready for the scrap heap. Reacting to the recent talk by Warren Brown, president of the Monon, before the Atlantic States Board (*Railway Age*, May 17, page 10), the Pacific Northwest group termed the boards "a vital cooperating body in promotion of adequate rail transportation service."

A motion adopted by the board stated that: "Boards are filling an important niche in the matter of car service and supply, and should be continued as such." The board also said it would be receptive to any ideas and thoughts that would improve transportation service.

Alarm was expressed by K. C. Batchelder, traffic manager of the West Coast Lumbermen's Association, at the decline in new box cars currently being installed, and "excessive" retirements. He said that, in view of "troubled world conditions," railroads should be maintaining a close watch on the adequacy of their car supply.

To this, Arthur H. Gass, chairman of the AAR's Car Service Division, replied that it is not the number of freight car units that is important, but

the use that is made of each unit. For illustration, he compared the "serious congestion" of freight traffic during World War I, when there was no orderly method of handling material between assembly lines and ports, with the relatively smooth handling of freight during World War II. He said the railroad industry's goal of 1,850,000 freight cars has not changed, but reminded board members of the current 121,000-car surplus, and that purchase of more cars now would only add to that figure.

N. E. Ottosen, traffic manager, Associated Plywood Mills, Eugene, Ore., and president of the board, presided at the June 17-18 meetings in Seattle, where other spokesmen for the plywood industry pointed out the need for more double-door cars and urged carriers to increase their ownership of such cars. Paul C. Baldwin, vice-president, Scott Paper Company, was guest speaker.

### Rail Motor Affiliates Form New Association

A new organization comprised of Western railroads and their motor carrier affiliates which use trucks in moving merchandise, has been formed at Kansas City, Mo.

The organization, known as the Western Railroad Truck Lines Association, will study the handling of merchandise traffic in joint rail-truck operations. Eskel O. Walters, its first chairman, who is general manager of the Kansas City Southern Transport Company, said the association will operate as a study and exploration group, but will not engage in legislative action or deal with rate making. "Our purpose is to bring together a group of men specializing in handling rail traffic in truck service. We hope to devise means by which service to the public may be improved and to uncover better operating methods for our companies."

Ralph C. Bryant, general manager, Frisco Transportation Company, has been elected secretary-treasurer of the new association. Directors include Messrs. Walters and Bryant, plus J. D. Cameron, general traffic agent, Illinois Central; W. A. Gammon, vice-president, Santa Fe Trail Transportation Company; C. J. Werlla, general merchandise agent, Missouri-Kansas-Texas; C. G. Kullman, general manager, Union Pacific Motor Freight Company; and O. E. Bellomy, superintendent, Texas & Pacific Transport.

The Traffic Club of Houston has elected the following new officers: President—A. J. Husmann, Kirby Lumber Company; vice-presidents—A. L. Shine, Frisco, and C. H. Hull, Jr., Diamond Alkali Company; secretary—A. W. Huffman, Reed Roller Bit Company; and treasurer—Hugh R. Lamb, Kansas City Southern.



**TWO NEW AMERICAN-BUILT** diesel-electric locomotives at Port-of-Spain, Trinidad, about to start their initial runs. Products of the General Electric Company's Erie, Pa., locomotive plant,

the new locomotives will be used in both passenger and freight service between Port-of-Spain, St. Joseph, and other cities in the interior of the island.

## Equipment & Supplies

### FREIGHT CARS

#### Rutland Budgets Car Building; Orders 50 PS-1s

The Rutland has ordered 50 PS-1 box cars from the Pullman-Standard Car Manufacturing Company — the road's first order for new freight equipment in 30 years.

In announcing the order, Rutland President Gardner A. Caverly indicated it was part of the road's new equipment program which will spread over "the next several years."

Mr. Caverly termed the standardized box car "advantageous not only to larger roads but the salvation of a small railroad such as ours, for it makes it possible for us to purchase mass-produced equipment in small lots without having to pay a premium price." He referred to the recent article by Gustav Metzman, chairman of the American Railway Car Institute (*Railway Age*, May 31, page 32), in which Mr. Metzman called upon the nation's railroads to help commercial builders level out the "peak-and-valley" phenomenon by budgeting and planning their freight car buying.

"To that end we are budgeting and planning our future requirements over the next several years and we hope that our part—however small—may start a movement by our industry which will tend to make the independent carbuilder a partner in helping us solve our equipment problems," Mr. Caverly said.

The **Burlington** has ordered 100 70-ton covered hopper cars from the General American Transportation Corporation at an estimated unit cost of \$10,664. Delivery is scheduled for early next October.

The **Chicago & Illinois Midland** has ordered 150 50-ton box cars from the Pullman-Standard Car Manufacturing Company for delivery in July.

The **Maine Central** has ordered 15 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company at a unit cost of \$7,650. Delivery is scheduled for July 15.

The **Nickel Plate** has ordered one 250-ton flat car from its own shops at an estimated cost of \$48,000. Delivery is expected July 31.

The **Reading** has ordered 50 70-ton flat cars from its own shops at a cost of \$525,000. Delivery is scheduled for later this year.

The **Wabash** has ordered 50 50-ton flat cars from its own shops for delivery next August and September.

## LOCOMOTIVES

### British Approach to Coal Gas-Turbine Locomotive

Preliminary details of a coal-burning gas-turbine locomotive, which is being designed and built jointly by the North British Locomotive Company, Glasgow, Scotland, and C. A. Parsons & Co., New-Castle-on-Tyne, England, have been disclosed by the former company.

In this locomotive, which is intended for test on British Railways, the problem of protecting turbine blades from the action of flyash has been eliminated by driving the turbine with air heated through a tubular heat exchanger, known as an "exhaust heater," through which pass the gases from the combustion chamber. The air under pressure moves through the exhaust heater, where its temperature is raised to nearly 1,300 deg F. Thence it drives the compressor turbine and the power turbine in that order, after which it passes to the combustion chamber, into which the pulverized coal is fed. The power turbine is said to be geared directly to the driving wheels.

### Class I Roads Install 130 Locomotives in May

Class I railroads installed 130 new locomotive units in May, compared with 258 units in May 1953, the Association of American Railroads has announced. Last month's installations included 128 diesel-electric units and two gas turbine-electric locomotives, compared with May 1953 installations of 257 diesel-electric units and one steam locomotive.

New locomotives placed in service during this year's first five months totaled 688, of which 684 were diesel-electric units and four were gas turbine-electric locomotives. In the comparable 1953 period, 1,102 new locomotive units were installed, including 1,093 diesel-electrics and one gas turbine-electric and eight steam locomotives.

On June 1, Class I railroads had 170 new locomotive units on order, including 149 diesel-electric units, and 10 electric and 11 gas turbine-electric locomotives, compared with 682 new units on order June 1, 1953, which included 647 diesel-electric units and seven steam, 10 electric and 18 gas turbine-electric locomotives.

### PASSENGER CARS

The **Rock Island** has indicated its intention to purchase from ACF Industries, at an approximate cost of \$600,000, a 4-car train combining many basic design features of the "Talgo" train (see page 60). Each car will consist of three articulated units. Total seating capacity of the new train will be 300.

## Supply Trade

**Caterpillar Credit Corporation**, a wholly owned subsidiary of **Caterpillar Tractor Company**, has been formed to assist the company's domestic and Canadian dealers in financing time payment sales.

As an additional step in its decentralization program, **General Electric Company** has divided its former Lighting and Rectifier department into two separate organizations—an Outdoor Lighting department with **L. Byron Cherry** as general manager, and a Rectifier department, **William J. Fleming**, general manager.

**Robert H. Binkerd**, district sales manager of **American Locomotive Company** at Dunkirk, N.Y., has been made district manager of the company's new sales office in the Frick building, Pittsburgh.

**Standard Steel Works** division of **Baldwin-Lima-Hamilton Corp.**



**R. H. MORSE, III** (above), has been appointed assistant to vice-president in charge of sales for Fairbanks, Morse & Co., and **W. E. WATSON** (below), has been appointed manager of the Beloit, Wis., works. Mr. Morse had been manager of the Beloit plant for the past two years, and Mr. Watson for the past 1½ years had been works manager of the firm's affiliate, the Canadian Locomotive Company.



ration has appointed new sales representatives for the following territories: Syracuse, **Francis W. Klotz**; Pittsburgh, **Philip E. Pacini**, and central Pennsylvania, **Robert T. McClellan**.

**Roy F. Hancock**, formerly assistant to vice-president, sales, **Vanadium Corporation of America**, has been appointed assistant vice-president, with headquarters in the company's New York City offices.

## New Facilities

### Kansas City Terminal Enlarging Interchange Line

Improvements costing approximately \$2.6 million, and requiring nearly 18 months to complete, are now under way on the Kansas City Terminal's interchange route between 24th street and the state line, through the West Bottoms Industrial District, to Fourth street. Correlated improvements are being made in yards and facilities of individual road-haul carriers.

The project provides for expansion of the present two-track interchange route into a three-track line fully signalled for operation in either direction on any track. One interlocking tower owned by the Burlington and one owned by the KCT will be con-

solidated, and a KCT tower at the south end of the route will be replaced. The project also will eliminate a number of crossing stops in the area; provide for replacement of manually-operated ground switches by interlocked switches; and provide for installation of a complete communications system, including paging and talk-back speakers, plus two-way communication between about 40 railroad offices and towers in the area. The entire project will be carried out under traffic conditions.

**Louisville & Nashville.**—Centralized traffic control will be installed between Corbin, Ky., and Ponza, at a cost of \$1,563,885. At the new Radnor (Nashville) terminal project, a spur track 3,950 ft long will be constructed at a cost of \$30,620, to serve warehouses planned by the Kraft Foods Company and Sears Roebuck & Co. A new freighthouse and transfer facilities, to cost \$889,935, and serve in lieu of existing facilities at Kayne avenue, will be used both by the L&N and the Nashville, Chattanooga & St. Louis.

## Financial

**Canadian Pacific.**—Control of *Wisconsin Central*.—The ICC has authorized the CPR to acquire control of the reorganized WC. This was contemplated by the WC reorganization plan.

**Chicago, Rock Island & Pacific.**—Acquisition.—The ICC has authorized this road to acquire control of the Wichita Falls & Southern through purchase of its outstanding securities and obligations. The purchase price of \$575,000 is based on the salvage value of a section of the WF&S line which RI proposes to operate for an experimental period of three years. The same report authorized the WF&S to abandon its entire 168.4-mile line between Wichita Falls, Tex., and Dublin, deferring for three years the effective date of the abandonment certificate insofar as it applies to the section RI proposes to operate, which is the 106-mile section between Wichita Falls and South Hanlon.

**Greyhound Corporation.**—Acquisition of *Pennsylvania Greyhound*.—The ICC has authorized this corporation to acquire control of Pennsylvania Greyhound Lines from American Contract & Trust Co., subsidiary of the Pennsylvania. The purchase agreement provides that Greyhound will pay \$9,260,000 for 77,000 shares of Pennsylvania Greyhound owned by American Contract. The payment will be \$6,260,000 in cash 30,000 shares of a new issue of Greyhound Corporation 5% cumulative preferred stock (*Railway Age*, December 14, 1953).

**Illinois Central.**—Acquisition.—The ICC has authorized this road to purchase the properties of its subsidiary and lessor, the Southern Illinois & Kentucky (*Railway Age*, April 5, page 81).

## Investment Publications

[The surveys listed herein are for the most part prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

**Eastman, Dillon & Co.**, 15 Broad st., New York 5.

*Attractive Yields in Railroad First Mortgage Bonds*, May 21.

**Smith, Barney & Co.**, 14 Wall st., New York 5.

*The Production and Quality of Railroad Earnings*, Railroad Bulletin No. 169, June 7.

*Railroad Earnings*, Railroad Bulletin No. 165, May 17.

*Southeastern and Southcentral Railroad Companies*, Railroad Bulletin No. 166, May 17.

**Vilas & Hickey**, 49 Wall St., New York 5.

*Bangor & Arrostook*, June 9.

## Securities

**Illinois Central.**—Stock Split.—The ICC has approved this road's plan for splitting its common and preferred stocks on 2-for-1 bases (*Railway Age*, May 31, page 16).

## Applications

**CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.**—To assume liability for \$5,100,000 of series S5 equipment trust certificates, first installment of a proposed \$7,800,000 issue which would finance in part acquisition of this equipment:

39 1,750-hp diesel road-switching units from Electro-Motive Division, General Motors Corporation, at estimated unit costs ranging from \$159,265 to \$171,326;

17 1,600-hp diesel road-switching units, including a lot of five from the American Locomotive Company at an estimated unit cost of \$146,685, and lots of five and seven from Fairbanks, Morse & Co. at estimated unit costs of \$149,582 and \$147,982, respectively;

50 "Airliner" cars from General American Transportation Corporation, including 35 50-ton cars at a unit cost of \$10,642, and 15 70-ton cars at a unit cost of \$10,977; and

2 sleeping cars from Pullman-Standard Car Manufacturing Company at an estimated unit cost of \$207,985.

Estimated total cost of this equipment is \$9,890,844. The present installment of certificates would be dated July 1, and they would mature in 30 semiannual installments beginning January 1, 1955. They would be sold by competitive bids, with interest rate set by such bids.

**GAINESVILLE MIDLAND.**—To issue promissory notes in the amount of \$85,000 to finance in part purchase of rail and track materials from the Seaboard Air Line. The purchase price would be \$110,000, but GM proposes to pay \$25,000 in cash. Notes for the remaining \$85,000 would be issued to SAL. Dated July 1, they would bear interest at 4% and would be payable in 10 semiannual installments, beginning January 1, 1955.

**LAKE TERMINAL.**—To issue a promissory note in the amount of \$225,000 to its parent company, United States Steel Corporation. Proceeds would be added to the road's working capital. The note, payable on demand, would bear interest at 4%, if earned.



**AN UNUSUAL CREDIT CARD** system has been established by the Monon and Loeb's, a Lafayette (Ind.) department store. Holders of the store's regular 30-day charge accounts may use their identification plates to "charge" ticket purchases at any Monon station or aboard any Monon passenger train. Meals in the road's dining or grill cars may be purchased on the same basis. Here Bert E. Loeb (right), president of the store, inaugurates the new service with Conductor R. F. Mahan.

**NEWBURGH & SOUTH SHORE.**—To issue notes in the amount of \$275,000 to its parent company, United States Steel Corporation. Proceeds would be added to the road's working capital. The notes, payable on demand, would bear interest at 4%, if earned.

## Authorizations

**CHICAGO & WESTERN INDIANA.**—To pledge and repledge, from time to time during the next two years, not exceeding \$751,000 of its first collateral trust mortgage, 4½%, sinking-fund bonds, series A, now held in its treasury. The bonds will be pledged as collateral security for short-term bank loans to be obtained for financing additions and betterments.

**MCCLLOUD RIVER.**—To issue, without competitive bidding, an unsecured promissory note in an amount not exceeding \$1,500,000. The note will evidence a loan from the McCloud River Lumber Company, and proceeds will be used to finance a line extension (*Railway Age*, May 31, page 15).

## Dividends Declared

**CANADIAN PACIFIC.**—75¢, payable in U. S. funds August 2 to holders of record June 25.

**CAROLINA, CLINCHFIELD & OHIO.**—\$1.25, quarterly, payable July 20 to holders of record July 9.

**DAYTON & MICHIGAN.**—8% preferred, \$1, quarterly, payable July 1 to holders of record June 15.

**LAKE SUPERIOR & ISHPEMING.**—35¢, quarterly, payable July 15 to holders of record July 1.

**MAINE CENTRAL.**—6% preferred, \$1.50, quarterly, payable July 1 to holders of record June 24.

**PHILADELPHIA & TRENTON.**—\$2.50, quarterly, payable July 12 to holders of record July 1.

**WESTERN NEW YORK & PENNSYLVANIA.**—common, \$1.50, semiannual; 5% preferred, \$1.25, semiannual; both payable July 1 to holders of record June 30.

## Security Price Averages

	June 22	Prev. Week	Last Year
Average price of 20 representative railway stocks	66.71	66.37	64.46
Average price of 20 representative railway bonds	95.04	94.78	89.14

## Railway Officers

### Franklin to Remain At Long Island Helm

Walter S. Franklin, who retired May 31 as president of the Pennsylvania, will continue as president of the subsidiary Long Island when the latter becomes a "railroad redevelopment corporation" under legislation just passed by a special session of the New York state legislature (*Railway Age*, June 21, page 4). Thomas M. Goodfellow, superintendent of the PRR's Pittsburgh division, at Pittsburgh, has been named general manager of the LI at Jamaica, N.Y., effective upon termination of the railroad's bankruptcy.

Application for such termination has been filed in federal court as the first step in carrying out a comprehensive rehabilitation plan developed for the railroad by the Long Island Transit Authority, and made possible by the special state legislation.

Mr. Franklin personally represented the PRR in negotiations with the Transit Authority, and secured acceptance of its rehabilitation plan by the railroad's board of directors. He will continue his presidency of the LI at least until the end of this year, serving without compensation, to guide the launching of the \$8-million rehabilitation and redevelopment program (*Railway Age*, May 31, page 11). Nathan L. Fleckenstine, superintendent of the Panhandle division at Pittsburgh, has been transferred to the Pittsburgh division, succeeding Mr. Goodfellow. John F. Piper, superintendent of the Susquehanna division at Williamsport, Pa., succeeds Mr. Fleckenstine, and H. C. Kohout, assistant superintendent of the Eastern division at Conway, Pa., replaces Mr. Piper.

Mr. Goodfellow was born at Altoona, Pa., on October 1, 1907 and began work for the PRR in June 1924 as a special apprentice during college vacation. After graduation from Cornell University (C.E., 1929), he joined the road permanently, serving in the engineering corps and as assistant su-



Thomas M. Goodfellow

pervisor and supervisor of track, and assistant supervisor on the LI and on the PRR's New York division. Mr. Goodfellow later served as division engineer and as superintendent of a number of the PRR's divisions, becoming superintendent of the Pittsburgh division in April 1953.

**ATLANTIC COAST LINE.**—Homer H. Babb, assistant chief clerk, passenger traffic department, has been appointed assistant to general passenger agent at Wilmington, N.C.

**J. U. Rooker**, acting trainmaster, Tampa (Fla.) district, has been appointed trainmaster, Richmond district, at Rocky Mount, N.C.

**BALTIMORE & OHIO.**—Howard P. Wright, assistant electrical engineer at Baltimore, has been appointed electrical engineer of the system, succeeding Lewis S. Billau, whose retirement was reported in *Railway Age* May 24.

**Irvin R. Jones**, superintendent of police, has been appointed general superintendent of the police department, succeeding the late H. L. Denton (*Railway Age*, June 14).

**BURLINGTON-COLORADO & SOUTHERN.**—Arthur D. McLane, assistant secretary, has been elected secretary and assistant treasurer of the Burlington at Chicago, succeeding Mrs. Edith J. Alden, who is retiring. He also replaces Mrs. Alden as assist-



Arthur D. McLane

ant secretary of the C&S, while Raymond J. Cunningham becomes secretary and treasurer of that company, to succeed W. H. Anderson. Mr. McLane joined the Burlington in 1911 as secretary to vice-president. He subsequently transferred to the treasury department, and in 1938 was appointed assistant secretary.

**CANADIAN PACIFIC.**—R. B. Scott, master mechanic of the New Brunswick district at St. John, has been transferred to the Quebec district, replacing L. N. Winslade, transferred.

**Jerome E. Paradis**, formerly manager of the real estate department at Montreal, has been named solicitor at Ottawa.

**H. Hollins**, assistant to treasurer at Montreal, has been appointed assistant to vice-president.

**A. L. McGregor**, superintendent of the Sudbury (Ont.) division, has been named supervisor labor relations at Montreal.

**CHESAPEAKE & OHIO.**—R. R. Stant and B. A. Corkran, auditors of revenue of the Chesapeake district at Richmond, Va., have been appointed auditor freight accounts and auditor passenger accounts, respectively, with the same headquarters.

**C. A. Taylor**, vice-president—operations of the Chesapeake district at Richmond, Va., has been named vice-president—operations, with jurisdiction over the entire system, effective July 1. **M. M. Cronk**, vice-president and general manager of the Pere Marquette district at Detroit, has been appointed



# Kinnear Metal Rolling Doors

## Offer Time-Tested Advantages

# For All Railway Buildings

More than 50 years of time-tested advantages explain why Kinnear Rolling Doors are used in so many railway buildings of all types.

The doors rise straight upward into a small coil above the lintel. There's no loss of floor and wall space around doorways. Even ceiling space remains clear at all times, permitting unhampered use of overhead hoists, cranes, conveyors and similar equipment. You get more usable square-footage out of your buildings.

The doors are always completely out of the way when open. They store themselves out

of reach of damage by wind, storm, or vehicle.

Kinnear's rugged curtain of interlocking steel slats stands up longer under harder use with less maintenance. In addition it assures extra protection against fire, storms, accidental damage, and intrusion.

For highest efficiency, Kinnear Rolling Doors can be equipped with Kinnear Motor Operators, controlled by pushbutton, with additional remote controls switches if desired.

Write today for complete information.

### DOUBLE PROTECTION AGAINST THE ELEMENTS

Kinnear Steel Rolling Doors are heavily galvanized (1.25 oz. of zinc per sq. ft., as per ASTM standards) to provide a long-lasting weather-resistant surface. In addition Kinnear Paint Bond, a special phosphate application, provides for easy, thorough paint coverage and lasting paint adhesion.

Records show that many Kinnear Rolling Doors have been in continuous service for 20, 30 and 40 years.

### The KINNEAR Manufacturing Co.

2020-40 Fields Avenue • Columbus 16, Ohio  
1742 Yosemite Avenue • San Francisco 24, Calif.  
Offices and Agents in All Principal Cities



vice-president—staff at Cleveland. Mr. Cronk will carry out such assignments as may be made by the president, and in addition will assume responsibility for labor relations and personnel.

**J. P. Donovan**, assistant freight traffic manager at Detroit, has been appointed freight traffic manager at San Francisco. **W. H. Trent**, traveling freight agent at Lynchburg, Va., has been appointed general agent at Winston-Salem, N.C. Mr. Donovan joined the C&O in 1921, in the operating department at Detroit. He transferred to the freight traffic department in 1928, and served in a number of clerical positions before being named division freight agent in 1945, assistant general freight agent in 1947, and assistant freight traffic manager in 1950.

**DENVER & RIO GRANDE WESTERN**—**Willett S. Moore**, assistant secretary and assistant treasurer, has been named general freight agent at Denver, succeeding **E. K. West**, resigned. **Raymond C. McCron**, budget assistant to comptroller, has been promoted to assistant to treasurer and will assume duties formerly assigned to Mr. Moore. **Richard W. Hambrick**, traveling accountant, has been named budget assistant to comptroller succeeding Mr. McCron.

**DETROIT, TOLEDO & IRONTON**.—**William E. Lillis**, general freight agent, has been appointed to the newly-created position of freight traffic manager, with headquarters as before at Dearborn, Mich. **Edgar A. Walther** succeeds Mr. Lillis as general freight agent, effective July 1. **Robert S. White** has been named general eastern agent at New York, succeeding **Edward J. Murphy**, who becomes assistant general freight agent at Dearborn, a new position. **Robert J. Hons**, Northern traffic representative, has been appointed general agent at Toledo, succeeding **K. J. Aten**, who has been transferred to the transportation department at Wyandotte, Mich. The following promotions also have been made: **Harry J. Romer** to general southeastern agent at Cincinnati; **Harold A. Mewes** to general western agent at Chicago; **J. Gordon Thomas** to general agent at Pittsburgh, and **Rudy C. Kluiber** to general agent at Cleveland.

**GREAT NORTHERN**.—**E. A. Dye**, assistant general freight and passenger agent at Tacoma, Wash., will retire June 30. His duties will be taken over by **Paul Meyers**, general agent there.

**F. J. Conrad**, assistant general freight traffic manager, has been appointed general traffic manager at St. Paul, succeeding **George F. Hardy**, who will retire June 30. A biography and photograph of Mr. Conrad were published in *Railway Age* January 5, 1953, page 55. **W. D. O'Brien**, assistant general freight traffic manager—rates and divisions at St. Paul, becomes general freight traffic manager



—rates and divisions, while **V. P. Brown**, freight traffic manager—rates and divisions, succeeds him. Mr. Brown's successor is **E. W. Bergstrom**, assistant freight traffic manager—rates and divisions. Named as freight traffic manager—sales and service at St. Paul is **G. D. Johnson**, general freight agent at Seattle. **W. E. Nicholson**, also general freight agent at Seattle, has been advanced to assistant western traffic manager there, while **A. H. Engelhart**, assistant general freight agent at Minneapolis, and **R. L. Wyatt**, assistant general freight agent at Spokane, Wash., become general freight agents at Seattle and Minneapolis, respectively. **M. V. Schoonover**, general agent at Klamath Falls, Ore., has been named general agent—freight department at Spokane, while **R. L. Merklin**, traveling freight agent at Portland, Ore., replaces him.

**Raymond F. Berg**, assistant general counsel at St. Paul, will retire June 30. Named as attorney there is **Curtis H. Berg**.

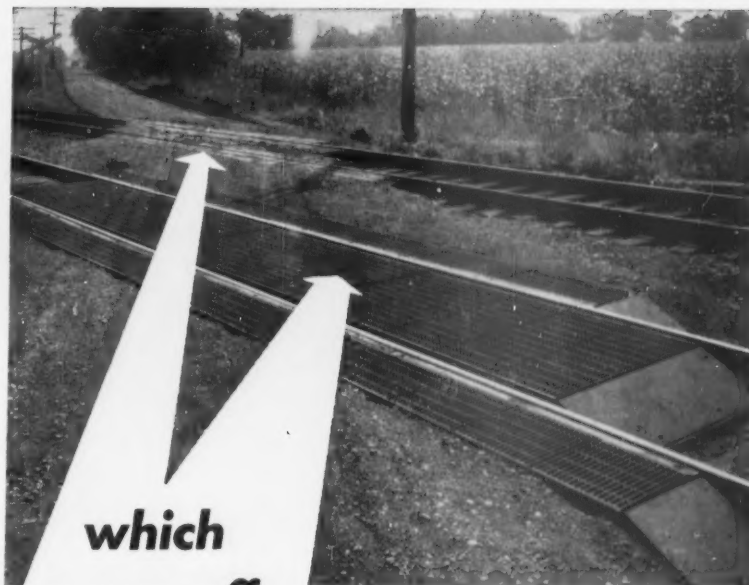
**NEW YORK CENTRAL**.—Following appointments have been made: **Garrard W. Glenn**, vice-president, law; **Charles T. Ireland**, secretary; and **G. R. McManus**, assistant treasurer.

**NEW YORK CENTRAL**.—**J. Philip Huppmann**, assistant to foreign freight traffic manager at New York, has been appointed assistant general freight agent at Syracuse, N.Y., effective June 1, succeeding **Robert J. Lynch**, deceased.

**John V. Hughes**, assistant superintendent of the Electric, Harlem and Putnam divisions, has been named superintendent of those divisions at New York, succeeding **Joseph D. Carkhuff**, who has retired after a half-century of railroad service, of which 37 years were with the NYC. **Russell S. Reuss**, assistant to general manager—management services at New York, has been appointed assistant superintendent of the three New York area divisions. **Frank H. Dugan**, assistant superintendent of the New York Terminal district at West 72nd street and North River, New York, succeeds Mr. Reuss. **William R. Horton**, general transportation inspector at New York, replaces Mr. Dugan. In addition, Messrs. Hughes and Reuss have been named superintendent and assistant superintendent, respectively, of Grand Central Terminal.

**George A. Steuber** has been elected president of **Despatch Shops, Inc.**, freight car building subsidiary of the NYC at East Rochester, N.Y. Mr. Steuber, who was vice-president—assistant to president, succeeds **Martin J. Alger**, who becomes chairman of the executive committee. Mr. Alger is vice-president—staff of the Central.

**A. W. Laskoske**, general manager of the Michigan Central at Detroit, has been named general manager—Lines East, NYC, at Syracuse, N.Y., replacing **Fred A. Dawson**, vice-presi-



Grating by BLAW-KNOX

**which  
pays off**

## **in less track maintenance and more public goodwill?**

You can readily judge which pays off—when you compare the beaten up, old-fashioned wood crossing with the smooth, modern steel crossing, which will last as long or longer than the rails.



To get more complete information, write for your copy of new Bulletin No. 2448 . . . or send your dimensional sketches for a quotation.

**GRATING APPLICATIONS**  
crossings • walkways •  
running boards • steps  
• tower platforms • fan  
guards • shelving • floors  
• catwalks • stair treads  
• and many other uses for  
versatile steel grating



### **CROSSINGS OF BLAW-KNOX ELECTROFORGED® STEEL GRATING**

- are easily installed and maintained—takes only two men to remove sections for tamping tracks, cleaning ballast, renewing ties
- provide good drainage, permit quick evaporation of snow and water, are easily kept clean
- stand wear and tear of vehicle traffic
- provide quiet, smooth crossing for trains

#### **Blaw-Knox Railway Equipment**

*Distributor—East of Rocky Mountains*  
**Railroad & Industrial Products Company**  
Chicago, Illinois

H. S. Russell—R. S. Russell

*Distributor—West of Rocky Mountains*  
**Brodhead Steel Products Company**  
San Francisco, California

#### *Local Representatives*

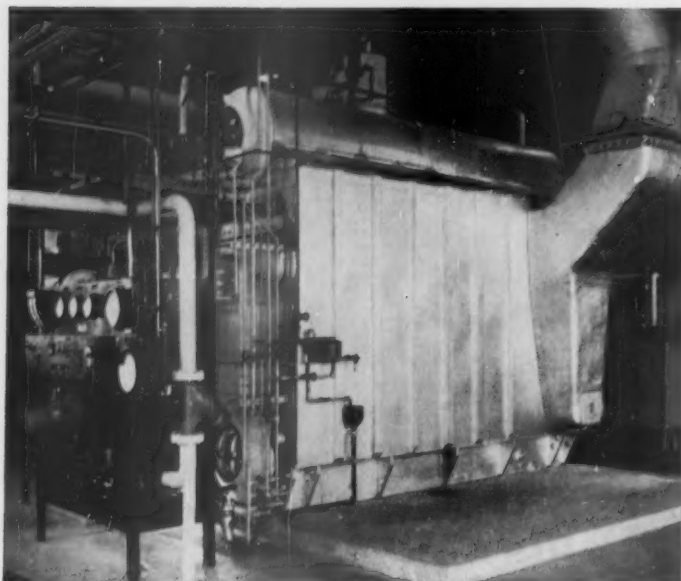
The Milliken Company, Roanoke, Virginia  
Robert J. Wylie Company, St. Paul, Minnesota  
T. F. Carlin, North Chevy Chase, Maryland  
J. M. Moore, Denver, Colorado

### **BLAW-KNOX COMPANY**

2123 Farmers Bank Building, Pittsburgh 22, Pa.

**BLAW-KNOX EQUIPMENT DIVISION  
RAILWAY EQUIPMENT DEPARTMENT**

# A Package Boiler With *Many* Advantages



The Type "VP" Package Boiler is the most widely used design in industrial boilers with capacities of from 4,000 to 30,000 lb. of steam per hour.

Principal features of the Type "VP" Package Boiler are:

Shop Assembly	All Water-cooled Furnace
Pressurized Furnace	Ease of Installation
No Short-circuiting of gases	Automatic Control

The Product of a Company Outstanding  
in the Field of Steam Generation.

Readily adaptable to Railroad Shops  
and Terminals.

Write for a copy of our catalog on the "VP" Boiler...  
there is no obligation. A copy should be in the  
files of every railroad that uses steam.

## THE SUPERHEATER COMPANY

Division of COMBUSTION ENGINEERING, INC.

200 Madison Ave.  
NEW YORK



Bankers Building  
CHICAGO

Elesco Steam Locomotive Equipment  
All Types of Steam Generating, Fuel Burning and Related Equipment

dent and general manager, who will retire July 1, after 44 years' service. **Ernest C. Johnson**, general superintendent at Cleveland, succeeds Mr. Laskoske at Detroit. Biographies and photographs of Messrs. Laskoske and Johnson were published in *Railway Age* February 16, 1953, and April 20, 1953, respectively.

**NORTHERN PACIFIC TRANSPORT COMPANY.**—**C. R. Opsahl**, superintendent at Billings, Mont., has been named to the newly created position of general manager of this NP subsidiary at St. Paul. Mr. Opsahl's successor is **V. B. Blackorby**, traveling supervisor.

**WESTERN MARYLAND.**—**B. E. Wynne**, who has been named controller at Baltimore (*Railway Age*, June 7), was born at Pittsburgh October 11, 1910, and attended the University of Pittsburgh. He was assistant



B. E. Wynne

to comptroller of the Bessemer & Lake Erie, Union, and Lake Terminal from 1949 until his appointment as controller of the WM. He is a past president of the Railway Systems and Procedures Association (1953-54).

**A. J. Leamy** has been appointed general western freight agent at Chicago, succeeding **Verne H. Bradford**, who will retire July 1, after 34 years of service. **Ralph Hudson** has been named general agent at Chicago.

## OBITUARY

**Harry Boller**, former general superintendent of the **Chicago Great Western**, died recently at St. Joseph, Mo.

**Kenneth P. Goodwin**, superintendent communications of the **Gulf, Mobile & Ohio** at Mobile, Ala., died June 21.

**George A. K. Richard**, auditor freight accounts of the **Burlington**, died June 8 in West Suburban Hospital, Oak Park, Ill., after a prolonged illness.



**A.A.R. APPROVED**

# Freight Car Trucks

proved  
by millions  
of service miles

**SCULLIN STEEL CO.**

SAINT LOUIS 10, MISSOURI



NEW YORK  
CHICAGO  
BALTIMORE  
RICHMOND, VA.  
CLEVELAND



## Letters from Readers

### Questions Elimination of Competitive Passenger Trains

ST. LOUIS, MO.

TO THE EDITOR:

I should like to take exception to Mr. William White's remarks as reported on page 8 of the May 17 issue of *Railway Age*, regarding the possibility of savings through elimination of parallel passenger service by competing lines.

Mr. White's proposal is that, since railroads are battling over division of a limited piece of passenger traffic, let one line agree to retire from competition on one route in return for exclusive rights on another.

It is my contention that few markets are as unlimited as that in which the railroads sell travel, and that the last place a railroad need look for more passengers is on its competitors' trains. Rather, the market lies in the vast amount of intercity travel by private automobile, in bus and airline travel, and in those trips which are not made at all because available transportation is not attractive enough.

Duplicating train service is, to be sure, less likely to be remunerative than exclusive service of comparable quality, even when we are dealing with the latest modern streamliners. But there are very few examples of two such trains, operating on fast schedules with low fares, battling each other into the red. Such competition, even when duplicating has demonstrably drawn traffic from many other sources and has created traffic where none existed before.

Conversely, most of the runs of which Mr. White speaks are characterized by trains operating at terminal-to-terminal average speed of not much more than 50 mph, and with basic fares which I believe are unjustifiably high. Between New York and St. Louis, for example, the fastest New York Central train averages 54 mph and the fastest Pennsylvania train averages 53 mph. The round-trip first-class fare is \$90.35. Train travelers lose half a business day westbound and slightly more eastbound.

Between Chicago and Denver, a comparable distance, the fastest Union Pacific-Chicago & North Western train averages 65 mph, as does the fastest CB&Q train. The round-trip first-class fare is \$60.40. No business time is lost westbound; a little is eastbound. The Chicago-Denver service is profitable; and, though it is duplicating, I do not know of any move afoot to diminish the degree of duplication.

I believe the approach to more profitable passenger operations must be through careful study of traffic potential between various cities, as gaged by traffic research in population, distances, and competitors' services, and the consequent establishment of truly fast, modern service at competitive basic fares. Elimination of duplicating services should come only as a by-product of such a forward-looking program.

DIRK PARTRIDGE  
City Passenger Agent,  
Chicago, Burlington & Quincy

[In authorizing publication of the foregoing letter, Mr. Partridge wrote *Railway Age* that he was "speaking for himself only" and not for his company.—EDITOR.]

### How About a "Pullman" Pool for Freight Cars?

ALBANY, N. Y.

TO THE EDITOR:

I have just read the article by Gustav Metzger in the May 31 *Railway Age*. It probably has been considered long ago, but it occurred to me that a central organization, such as the Pullman scheme for supplying parlor and sleeping cars, would go a long way toward equalizing the construction of freight cars, and at the same time provide an adequate supply of them in localities where needed.

M. B. NELSON  
Delaware & Hudson

## Railroad men prefer **MULE-HIDE** *town and country* **SHINGLES** for these five reasons

**MORE HEADLAP**  
more than double the standard 2".

**TRIPLE THICKNESS**  
that means extra long wear.

**SECURITY NAILING**  
1 1/2" closer to shingle butts.

**'COR-DU-ROY' RIBS**  
that add years to shingle life.

**3 1/2" EXPOSURE**  
for greater resistance to wind.

**MULE-HIDE ROOFS**  
NOT A KICK IN A MILLION FEET

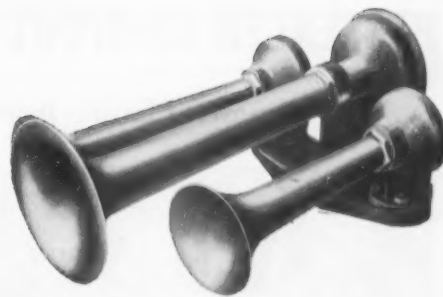
**300-LB WEIGHT  
4-UNIT DESIGN  
TEN RICH COLORS**

### MULE-HIDE TOWN & COUNTRY ROOFS

The popularity with railroads for 30 years of MULE-HIDE Shingles is proof enough they make the best roof you can buy. But behind this popularity are sound reasons that put these famous shingles in a class apart. Compare, and you will agree nothing can beat Town & Country.

**THE LEHON COMPANY** 4425 South Oakley Avenue, Chicago 9, Illinois





Sounds like the old steam whistle


and you can hear it  
miles away—

the **Westinghouse**  
**E-2B Pneuphonic Horn**

Westinghouse Air Brake E-2B Pneuphonic Horns are completely interchangeable with the present mounting base on your locomotives.

A low, medium, or high-pitched sound is available to suit your individual preference. No matter which style you choose, you get a pleasant 3-note chord that simulates the steam whistle with amazing fidelity.

**Westinghouse Air Brake**  
**COMPANY**

AIR BRAKE DIVISION  WILMERDING, PA.

**NEW MOVIE AVAILABLE** entitled, "AT THIS MOMENT"—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.



## PASSENGER COMFORT CAN BE INCREASED AND IMPROVED

... with powerful Exide-Ironclad car lighting and air conditioning batteries!



"KEEP ALL CARS brightly lighted and properly cooled" is a good rule of the road for keeping passengers comfortable. As glass areas increase and passenger loads fluctuate, the need for the abundant power of Exide-Ironclads becomes more vital. Ironclads respond instantly to all power demands.

They give you worry-free performance, high uniform voltage under all operating loads. Also, lower costs for operation, maintenance and depreciation make Exide-Ironclad batteries your best power buy . . . AT ANY PRICE!



THE POSITIVE PLATES are the heart of any battery. Only Exide uses a slotted tube construction. By use of tubes, more active material is exposed to the electrolyte, providing greater power. Also, more active material is retained, giving longer working life.



IMPROVED Exide-Ironclads now have power tubes made from non-oxidizing plastic for longest battery life. For full details, call your Exide sales engineer—write for Form 5010 (Installation and Maintenance of Car Lighting and Air Conditioning Batteries).

Your best power buy  
... AT ANY PRICE!

**Exide**<sup>®</sup>  
IRONCLAD<sup>®</sup> BATTERIES

**Exide INDUSTRIAL DIVISION**, The Electric Storage Battery Company, Philadelphia 2, Pa.

# under 1¢ a Mile

That is the repair parts cost record established by the Fairbanks-Morse 2400-Horsepower Opposed-Piston engines in four years of railroad service. That's the meaning of 40% fewer parts in the O-P.

## How?

**Simple** O-P 2-cycle design eliminates 40% of the moving parts found in comparable diesels. These are parts in other engines that need servicing, adjusting ... they wear and must be replaced.

**Conservative** rating of 200 horsepower per cylinder is the same as the first O-P that entered railroad service more than 10 years ago.

*This is the engine that powers the* **TRAIN MASTER**

It is another reason why TM is your best motive power investment.  
Fairbanks, Morse & Co., 600 South Michigan Avenue, Chicago 5, Illinois



**FAIRBANKS-MORSE**

*a name worth remembering when you want the best*

DIESEL LOCOMOTIVES, ENGINES • RAILCARS, RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS



# When should



# a Freight Car retire?

The answer: when it quits really earning its way. On a tough run, for example, that could be a relatively few years, whereas in easier service, it could be fifteen or twenty years.

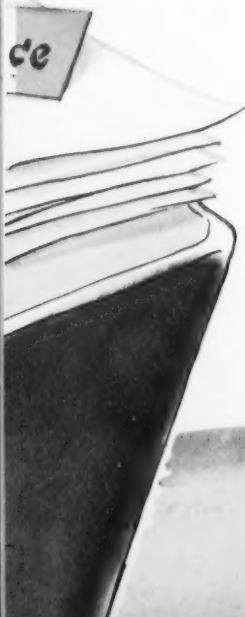
A freight car really earns its way when maintenance costs are low...when shipments are damage-free...when daily service is fast and dependable.

There is strong evidence of a clear relationship between old equipment and high freight damage costs. Right now these costs run into many millions of dollars each year. Much of this could be avoided with the right equipment.

For detailed information on actual experience in this respect, see your friendly **A.C.F.** Representative. He sells lower costs, damage-free shipments, fast and economical freight transportation. The only kind that really pays. **A.C.F.** Industries Incorporated, New York • Chicago • St. Louis Philadelphia • Washington • Cleveland • San Francisco

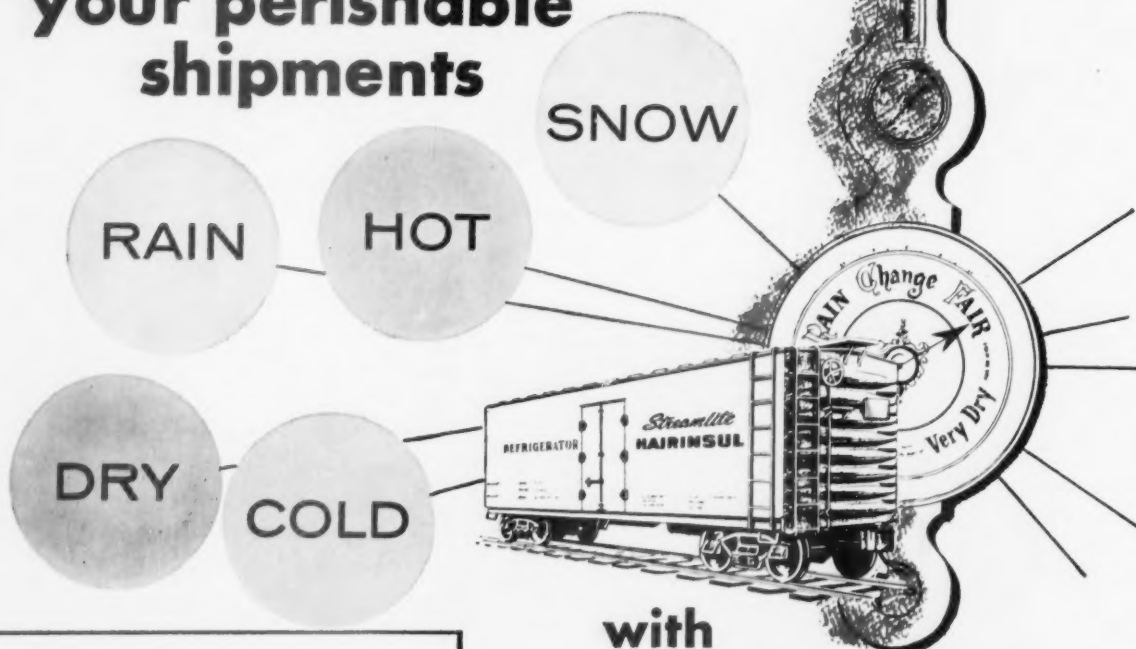
## **A.C.F.**

**CAR BUILDERS TO AMERICA'S RAILROADS**



# WEATHER CONTROL

## your perishable shipments



### with

## *Streamlite* HAIRINSUL

**LOW CONDUCTIVITY...** Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.

**LIGHT WEIGHT...** Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

**PERMANENT...** Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

**EASY TO INSTALL...** Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

**COMPLETE RANGE...** STREAMLITE HAIRINSUL is available 1/2" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings available.

**HIGH SALVAGE VALUE...** The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

No matter how extreme or sudden the temperature change, STREAMLITE HAIRINSUL, the dependable all-hair insulation, gives maximum weather-control protection to vital shipments of perishables under all conditions.

For nearly half a century, major car builders have specified all-hair insulation because of its greater efficiency and economy.

**WHEN WEATHER PROTECTION COUNTS...**  
you can count on STREAMLITE HAIRINSUL.

At left are still more reasons why leading refrigerator car builders insist on STREAMLITE HAIRINSUL. Complete data will be sent on request.

Write to:  
Merchandise Mart  
Chicago 54



SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED



PROGRESS

REPORT—

the  
**SOUTHERN  
STEEL  
WHEEL**

AAR X-2  
(1.5% CARBON)



**Behind the AAR X-2 Wheel:** 13 years of research and pilot foundry development work . . . 7 years of actual service test under cars in a broad variety of tough operating assignments . . . demonstrated service performance that proves its durability.

**Now in production:** The AAR X-2 wheel is now in limited production at Calera, Alabama, in Southern Wheel's new mechanized plant equipped with modern

electric furnaces and controlled heat-treating units. Full scale operation is due later this year.

**Availability:** Your Southern Wheel representative will keep you informed on the availability of this superior new wheel for your toughest freight service.

**SOUTHERN WHEEL DIVISION**

230 Park Ave., New York 17, N. Y.



# NEW FREEZER FREIGHT HI

200 new



**NO HOT BOX PROBLEM! STREAMLINER SPEEDS!**  
**NONSTOP RUNS! SMOOTHER, FREE-LATERAL RIDE!**  
**EASIEST INSTALLATION! EASIEST MAINTENANCE!**

*Here's big news about modern rail-roading! . . . and here's a big step forward in a farsighted program to provide shippers of perishables with the finest rail service possible.*

These new reefers help give shippers fast, economical, "on time" delivery. Mechanical refrigeration eliminates icing stops, and with Hyatt Roller Bearings at the wheels there are no costly delays for hot boxes. Also, because Hyatt's free-

lateral design greatly reduces jolting and jarring en route, spoilage is virtually nil—even on long runs.

But that's not all. Fruit Growers Express can also count on *lowest possible operating costs*. For Hyatt straight-roller journal boxes are *easiest to install, easiest to inspect, and easiest to maintain*.

Protect your investment in roller bearing freight cars. *Specify Hyatts!*

# HYATT

STRAIGHT ☐

BARREL ☐

TAPER ☐

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, NEW JERSEY

## ROLLER BEAR

# **GHBALLING ON HYATTS !**

**FGE mechanical refrigerator cars  
equipped with Hyatt roller bearings**



**RUNNING  
MATE  
OF  
DIESEL  
FREIGHT**



**ING JOURNAL BOXES**





# A hundred railroads can't be wrong



Again Again and Again  
they specify Model 10's

## BECAUSE:

No other grade crossing safety device protects crossing traffic so surely, so dependably. Proof of this fact is written in their matchless performance record: Thousands of Model 10 Signals are in service at busy crossings on a hundred railroads, yet not a single accident has ever occurred as a result of operation failure on the part of these signals.

## BECAUSE:

Dollar for dollar, Model 10 Automatic Signals represent the best buy in grade crossing protection. Model 10 installations cost but a fraction as much as underpass or overpass construction, yet offer comparable protection. Replacing watchmen, Model 10's effect a tremendous saving—sometimes pay for themselves during a single year of service.

## BECAUSE:

They solve the grade crossing safety problem *immediately*. Model 10 installations can be made easily, and in much less time than is required for grade separation.



Get all the facts about Model 10's.  
Write for "Grade Crossing Safety is  
Your Business." Ask for Brochure 748-RA-65

**WESTERN RAILROAD SUPPLY COMPANY**

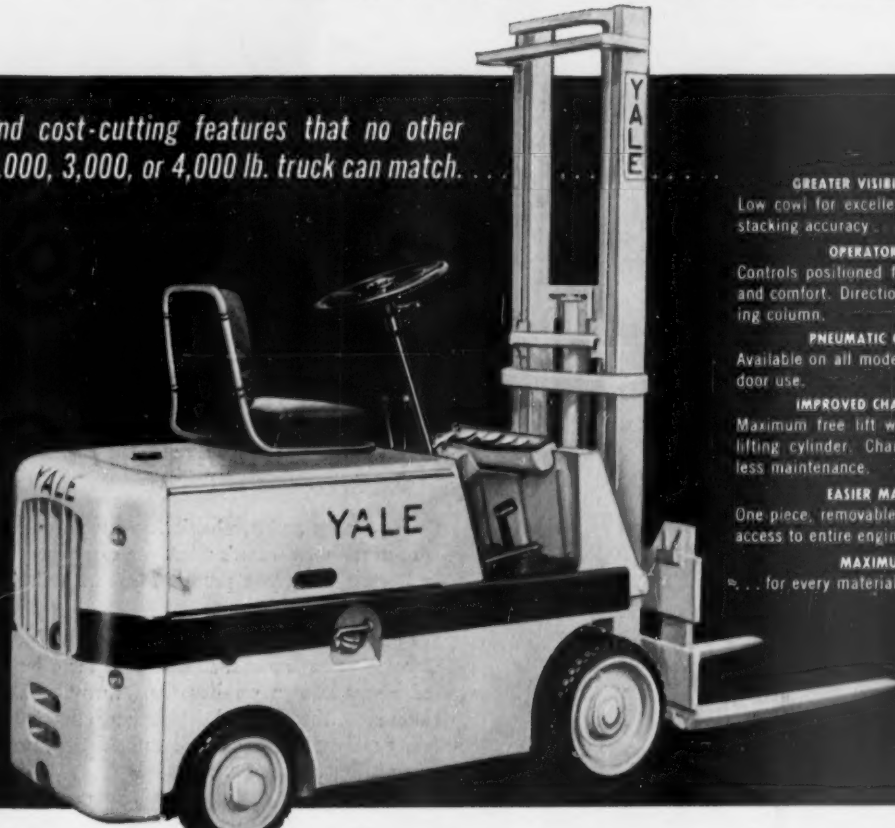
General Offices and Factory.

2428 SOUTH ASHLAND AVENUE • CHICAGO 8, ILLINOIS

# FIRST 2,000 LB. GAS TRUCK WITH YALE FLUID COUPLING

...in this capacity and over-all length

*And cost-cutting features that no other 2,000, 3,000, or 4,000 lb. truck can match.*



**GREATER VISIBILITY AND SAFETY**  
Low cowl for excellent visibility... greater stacking accuracy... safer operation.

**OPERATOR EFFICIENCY**  
Controls positioned for maximum efficiency and comfort. Directional gear shift on steering column.

**PNEUMATIC OR SOLID TIRES**  
Available on all models... for indoor or outdoor use.

**IMPROVED CHANNEL ASSEMBLY**  
Maximum free lift with Simplex or Duplex lifting cylinder. Channels last longer with less maintenance.

**EASIER MAINTENANCE**  
One piece, removable engine hood for easy access to entire engine.

**MAXIMUM POWER**  
... for every material handling job.

All the proven economy and durability of YALE Fluid Coupling are now available in a short, lightweight Truck. This latest YALE Truck, in capacities from 2,000 to 4,000 lbs., has exclusive, cost-cutting features... can't be beat for all-

around handling speed, safety and efficiency. And you can put it to work without delay... without major investment... under the exclusive YALE "3-Way-Finance-Plan." Mail coupon for complete details.

**YALE**  
INDUSTRIAL LIFT TRUCKS  
AND HOISTS

\*Reg. U. S. Pat. Off.

MAIL THIS COUPON TODAY

The **YALE & TOWNE** Mfg. Co., Dept. 486  
11000 Roosevelt Blvd., Philadelphia 15, Pa.

I would like to have additional facts about  
☐ Yale Trucks.      ☐ Yale Hoists.  
☐ Yale 3-Way-Finance-Plan.

Company \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

In Canada write: The Yale & Towne Mfg. Company  
St. Catharines, Ontario, Canada

Gas, Electric, Diesel & LP-Gas Industrial Trucks • Worksavers • Hand Trucks • Hand & Electric Hoists • Pul-Lifts



**LONG LIFE**

**LOW UPKEEP!**

*That's what you can expect  
from your Diesels...  
when you use Gargoyle  
Diesel lubricating oils!*

Fewer repairs and overhauls...greater economy...  
greater availability—that's what you can expect from  
your Diesels when you protect them with Gargoyle  
Diesel lubricating oils.

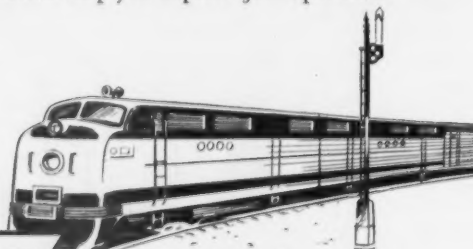
We cooperated closely with operators and builders  
to develop these fine oils. In them, we have incorpo-  
rated every known quality for improving Diesel  
performance...exceptional detergency, effective anti-  
foaming action, high resistance to oxidation, unusual  
wear-resisting properties.

Today, continuing and exhaustive field evaluations  
on major roads are proving the ability of these famous  
oils to keep Diesels running at top efficiency.

Why not let our products, experience and research  
facilities help you improve *your* operations?



**SOCONY-VACUUM**  
CORRECT LUBRICATION

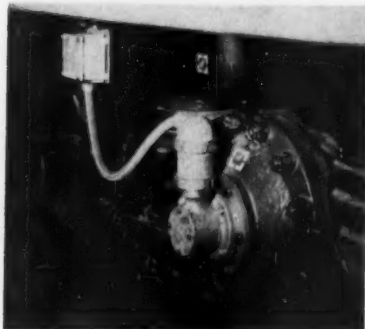


**WORLD'S GREATEST  
LUBRICATION KNOWLEDGE  
AND ENGINEERING SERVICE**

SOCONY-VACUUM OIL COMPANY, INC., Railroad Div., 26 Broadway, New York 4, N. Y.



# What's New in Products



Pickup unit (above) and speed indicator unit (right).

## Electric Remote Drive Speed Recorder

A speed indicating and recording device introduced by the Matisa Equipment Corporation, 224 S. Michigan ave., Chicago 4, features electric transmission between the pickup portion on the journal box and the indicating portion in the cab. The electric remote drive which connects the two points together is simple to install, compris-



ing an electric cable with synchronous motors at either end to measure the rotary motions of the transmitter at

the axle on the indicator in the cab.

The instrument indicates and records speed, time of day in hours and minutes, and distance traveled. It also records time spent traveling and time spent standing. Where desired, one or two of the following items also can be recorded—brake pipe pressure, steam heat pressure, direction of travel, interruption of current or events such as running past signals. The instrument also includes a six-digit mileage counter which can be used to show anything from trip mileage to mileage since overhaul.

The record of the trip is indicated by a ball-pointed stylus which marks directly on treated paper and which is not subject to wear. The chart itself is 102 mm (4 in.) wide with the space for recording the speed 40 mm (1 5/8 in.) wide. The area below the speed record shows direction of running or current interruptions and the brake or steam line pressure. The area above the speed graph shows the time spent standing and the time spent under way.

Time is measured by clockwork within the instrument which moves the chart 5 mm per hour while standing and by the upper stylus which travels between the top and bottom lines of its section once every 10 min whether standing, or running. The timing mechanism also controls the speed (Continued on next page)



Versatile Austin-Western tractor-mounted hydraulic crane lifting mounted car wheels with magnet at scrap pile (left)—Extending boom with long 24-ft reach in material yard (center)—Using part of 24-ft vertical lift to place crate of material on low balcony in storeroom (right).

## New Austin-Western Hydraulic Crane

The Austin-Western Company, Aurora, Ill., is introducing an indoor-outdoor hydraulic crane, said to be a completely new development in the materials handling field.

While combining many features of crawler, truck and erection cranes with those of industrial shop cranes, the Austin-Western machine is self-propelled and hydraulically operated. Four functions are involved: turntable rota-

tion, boom elevation, raising and lowering of cable and hook; and power extension and retraction of the boom. All movements, including steering, are actuated by hydraulic power.

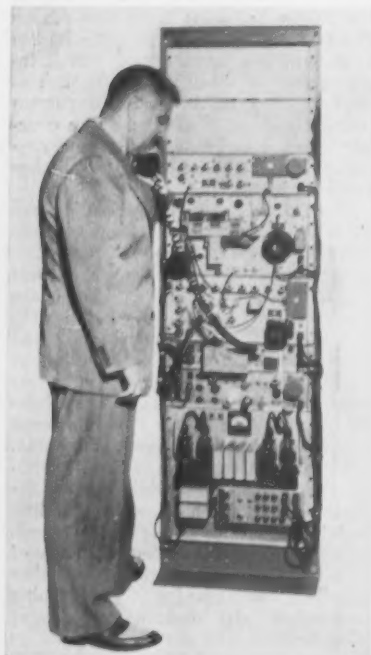
The crane is essentially an adaptation of a machine originally designed for the U. S. Navy. The lightweight, fast-moving crane proved so successful that Austin-Western decided to make it available for civilian use. The following principal specifications were adopted: 360-deg boom rotation; 24-ft horizontal reach from center of rota-

tion; 24-ft vertical lift from ground level to hook; ability to negotiate grades up to 20 per cent under full load; 15 mph road speed, under full load; overall height, 9 ft and overall width 8 ft to meet door and aisle requirements in most plants.

Austin-Western engineers are now developing truck-mounted applications for production in the near future as well as attachments, including clamshells, magnets, fork lifts, loaders, bulldozers, and snowplows to add to the versatility of this hydraulic crane •

## More New Products

measurement by engaging and disengaging gears on a cycle exactly one second long, making the indication independent of temperature and friction •



### Microwave Equipment

Microwave radio relay equipment, designed to meet the specific requirements of the railroads, has been announced by the Engineering Products Division of the Radio Corporation of America, Camden 2, N. J. The RCA CW-20 and RCA CW-5 microwave systems are both designed to work with standard railroad type telephone and telegraph carrier equipment, in conformity with AAR tentative microwave specifications.

The RCA CW-20 equipment, which operates in the 2,000-megacycle band, is intended for long-haul multi-channel backbone microwave radio relay systems. It is capable of handling up to 25 telephone channels, plus 20 Teletype channels. Utilizing conventional single-sideband suppressed-carrier channeling equipment, it will handle up to 24 voice channels, plus a service channel, in systems more than 1,000 miles in length.

This system employs heterodyne-type repeaters which do not require demodulation and remodulation of the base band, as is customary in back-to-back type repeaters. Their use minimizes distortion to such a degree that standard telephone carrier equipment may be used for dividing the baseband into a large number of individual voice channels, which may be operated

simultaneously and fully loaded. Wire lines already carrying superimposed telephone and telegraph carriers may be fed directly to RCA CW-20 microwave terminals or repeaters through simple filters and termination equipment without demodulation of the carrier channels and remodulation, as is necessary with many types of microwave systems.

As a companion line, the RCA CW-5 microwave system operates in the 950 megacycle band for short-haul service, and is intended for handling up to six voice carrier channels. The CW-5 series can be used for leg circuits to extend a small number of channels from 2,000-megacycle backbone microwave systems to intermediate waystations or off the route of the main system •



### More Light for Less Current

General Electric Company, Nela Park, Cleveland 12, Ohio, has introduced a new fluorescent lamp said to produce 35 per cent more light than any previous fluorescent light source.

First of the new line is a standard cool white lamp, 8 ft long with a diameter of 1½ in. Rated at 110 watts, it has a total light output of 6,800 lumens. Its rated life is 7,500 burning hours.

An important feature of the lamp is a base of entirely new design. It incorporates two contacts recessed in a single element, and allows the lamp to be inserted easily and safely in push-pull lamp holders. Because of the new base, and because its operating characteristics differ from all previous types, the new lamp will be used only in new fluorescent lighting installations. The lamp employs the rapid start circuit.

A feature of the lamp is its ability

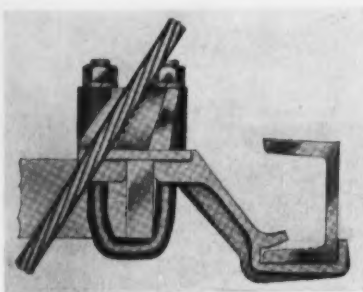
to maintain its high light output even in cold weather, making it applicable to many out-of-door lighting jobs •

### Powdered Metal for Electrode Coatings

The Lincoln Electric Company, Cleveland, Ohio, has announced the second in its newly developed line of electrodes with powdered metal coatings. Called Jetweld 2, the electrode is designed for welding butt and deep-groove joints. It is a companion to Jetweld 1, designed for welding horizontal and flat fillet joints.

These electrodes with powdered metal in their coatings are described as a radical departure from former electrode designs.

Certain operating difficulties which the manufacturer says are inherent in all conventional electrodes are said to be overcome by powdered metal coatings. First, an additional source of metal is available to permit higher deposition rates at usable currents and, second, problems created by the excessive amount of heat in the arc are eliminated. Powdered metal in the coating is the additional source of metal, and the excess heat available in the arc is used to melt this metal. Faster speeds are thus made possible without too much penetration, gouging of the parent metal, undercutting, spatter, overheating of the electrode coating or other difficulties associated with high current production welding •



### Brake Beam Safety Support

AAR approval has been granted to a new brake-beam safety support manufactured by Grip Nut Company, 310 South Michigan ave., Chicago 4. The safety support, designed to prevent derailment as a result of brake beam or brake hanger failure, is adjustable to provide proper clearance over the bolster and can be applied to loaded or empty cars without having to jack the car or remove the trucks.

Drilling, riveting or welding is not needed for installation. The support is attached to the brake beam only. Detaching one side of the support permits removal of the brake beam, and wheels can be removed without disturbing the supports •



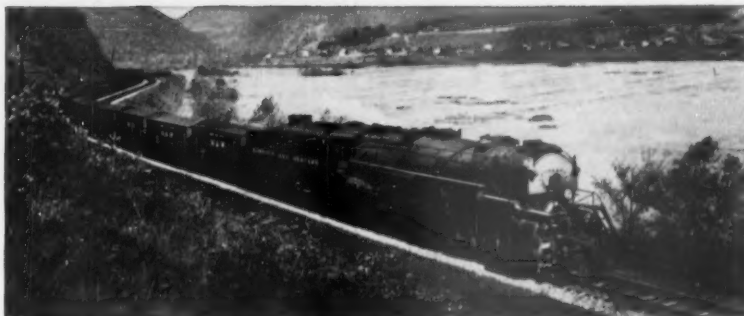
"Thorough rail testing is vital to our operations," says Mr. A. B. Stone, Chief Engineer of Norfolk and Western, "and so is smooth scheduling of our high density traffic during testing periods. We've combined both and cut chargeable time for Detector Car operation by 70% through close cooperation with Sperry Rail Service personnel."



"Timing is the key to coordinating movements of the Detector Car with our high speed passenger and freight trains," Mr. Stone continues. This photo shows passenger train No. 9 pulling through siding at Elliston, Va., while the Sperry Detector Car continues main line testing between switches. No time was lost in passing.

"Leaders since 1928 in nondestructive testing" has been more than a slogan with Sperry. Among the most important contributions to railroad safety is the use of the ultrasonic Reflectoscope for in-place testing of locomotive axles, car wheels and other equipment . . . locating hidden fatigue cracks and other defects before failure occurs. Call or write for further information.

## Rail Testing costs drop when N & W and Sperry Rail Service team up



High density traffic and Detector Car schedules are fully integrated when Norfolk and Western and Sperry Rail Service team up for periodic tests of N & W track. As Mr. Stone puts it, "The determined effort and close cooperation of every person involved in the operation of the Sperry Detector equipment has made each succeeding test more efficient and economical than the last."



Each day's testing itinerary is prepared in advance. Track to be tested is cleaned and marked, train movements are studied, passing places decided upon, and operating personnel in the territory alerted. From the experience of Sperry Rail Service in testing more than 2,000,000 miles of track, Sperry operating personnel are alert to every opportunity to increase testing efficiency. Photo shows N & W Time Freight No. 96 passing Sperry Car in the hole at Berryville, Va.



**Sperry**

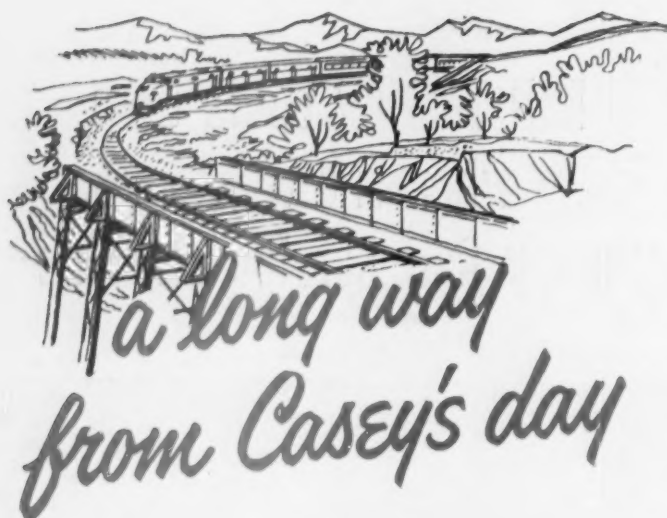
FIRST IN RAIL TESTING

**SPERRY  
RAIL SERVICE**

Division of Sperry Products, Inc.  
Danbury, Conn.

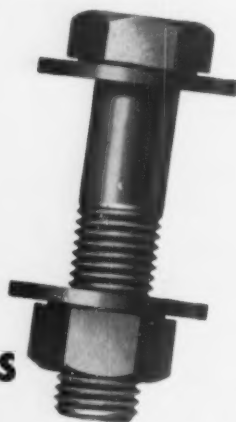
New York    Chicago    St. Louis





Long gone are the days of the smoke-eating, let's-live-dangerously type of railroader. The improvement of railroad rolling stock has been swift and sure. And now, to keep pace with this progress, comes the development of the *Lamson High-Strength Structural Steel Bolt*.

## *Lamson* HIGH-STRENGTH STRUCTURAL STEEL BOLTS



The High-Strength Bolt offers lower construction cost, little or no maintenance or inspection and safety-to-spare to the men who build railroad bridges and other structural units.

Lamson and Sessions, one of the pioneers in the structural steel bolting field, has prepared the full story in an interesting and informative folder. This folder is yours for the asking . . . just write to . . .

RAILROAD SALES DEPARTMENT  
**The LAMSON & SESSIONS Co.**  
1971 West 85th St., Cleveland 2, Ohio  
Plants at Cleveland and Kent, Ohio  
Birmingham • Chicago



**Large Bolts • Cotters**  
**Square and Hex Nuts • Weather-tight Bolts • Bent Bolts**  
**Phillips and Clutch Head Screws • Lock Nuts • Cap Screws**

## Current Publications

### PERIODICAL ARTICLE

ST. LAWRENCE: POWER FOR TWO NATIONS AND A PATHWAY FOR SHIPS. *Business Week*, June 12, 1954, pp. 134-150. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Limited supply of tear-sheets available free.

A discussion of both power and navigation angles of the St. Lawrence Seaway, including arguments for and against the seaway.

### BOOK

PROCEEDINGS: SEMINAR ON OPERATIONS RESEARCH. Sponsored by Railway Systems & Procedures Association, with technical assistance from Operations Research Office of Johns Hopkins University. 131 pages, illustrations. Railway Systems & Procedures Association, P. O. Box 514, New York 8. \$4.50.

"If this is an example of Operations Research, I am all for it," one railroad executive attending this seminar is quoted as saying, after having heard a paper on "Analysis of Maintenance of Way Problems." Readers of this volume may or may not join him in this appraisal; the speaker quoted had had some experience with OR.

Mainly, this book contains examples of applications of operations research to problems in industries other than railroads. Operations researchers, in the formal sense of the expression, have done some—but not much—work in the railroad field. They believe, however, that some of their experience in other industries and in the armed forces can be carried over effectively into railroading.

This volume contains much of interest to railroad men from a number of departments. Two papers, at least, should have a very definite special interest for many—the one on m. of w. problems, which also has potential applications to maintenance of equipment department activities; and a paper on coordination of rail-truck transport, which deals almost entirely with piggyback.

Whether or not one is convinced that OR has something to offer the railroads as an aid to problem solving, his imagination ought to be stirred by some of the material in this volume.

The seminar of which this book is a complete report was briefly described in *Railway Age* March 7, page 75.

### TRADE PUBLICATION

RCA MICROWAVE RADIO RELAY, FOR DEPENDABLE RAILROAD COMMUNICATION. Form No. MW 354. 35 pages. Radio Corporation of America, Engineering Products division, Camden 2, N. J. Free.

This illustrated book tells what RCA microwave can do for a typical

railroad, in the way of providing communications circuits and facilities for dispatchers' and long-distance telephones, teletype, CTC codes and radio. One microwave system can handle 25 telephone conversations in both directions simultaneously, plus 20 signaling circuits for teletype, remote operation or supervisory control. The book also tells how microwave is used on a mining railroad in Venezuela to carry CTC controls and indications for switches and signals. Also included are other examples of RCA microwave installations.

#### PAMPHLETS

**PHOTOS BY CATERPILLAR, 1954 Edition.** 39 pages. Caterpillar Tractor Company, News Service, Peoria 8, Ill. Free.

Caterpillar has more than 100,000 current negatives, of which glossy prints may be obtained upon request. Also available are 4,400 color transparencies, which will be loaned out for the length of time it takes to do a job. Subjects cover various fields in which Caterpillar equipment is used.

**THE COLLEGE GRADUATE AND THE RAILROAD INDUSTRY.** A report by Robert L. Banks. 37 pages. Federation for Railway Progress, 1430 K st., N.W., Washington 5, D.C. Free.

Railroad recruitment of college graduates is extremely limited in extent, haphazard in application, and inadequate for the needs of the industry according to this FRP study. It has assembled a number of pertinent quotations on the subject, and has added fresh data which appraise the relationship between railroads and colleges. The report also gives particulars of several railroad training programs presently operated for college graduates, and concludes with a program recommended by the federation to achieve railway progress in this sector.

**CORROSION CONTROL OF ELECTRIC LIGHT AND POWER STRUCTURES AND EQUIPMENT.** 17 pages, illustrations. Subox, Inc., Fairmount Plant, Hackensack, N.J. Free.

Designed for operating field men of electric light and power industries, this pamphlet may be of interest to electrified railroads having similar problems in paint maintenance on transformers, catenaries and other such structures.

**THE THOMAS-STEEL RAIL ON THE SNCF NETWORK,** by J. Palme. 8 pages. **FRENCH MADE RAILS.** 23 pages, illustrations. Office Technique Pour L'Utilisation de L'Acier. 25 Rue du General Foy, Paris VIII, France. Free.

The first pamphlet covers rail speci-

fications; fabrication and welding; rail defects; statistics and track practice results; and present trends. The second pamphlet, in attempting to answer the question, "are rails of Thomas steel satisfactory?" reports operating results of French State Railways. It covers speed, comfort and safety, traffic, motive power, and track.

**DEFENSE AGAINST RECESSION; POLICY FOR GREATER ECONOMIC STABILITY.** 51 pages. Research & Policy Committee, Committee for Economic Development, 444 Madison ave., New York 22. Single copies, free; additional copies, 25¢ each.

This policy statement appraises our defenses against economic decline and suggests ways in which they can be strengthened. It is also issued in digest form under the title "What to Do About Recessions," limited quantities of which are available free.

**QUIZ ON RAILROADS AND RAILROADING.** Tenth edition. Association of American Railroads, Transportation bldg., Washington 6, D.C. Free.

First published in 1940 to supply answers to numerous questions concerning American railroads—their his-

tory, physical characteristics, operations, traffic, and the important role they play in American life as transportation servants, as fields of investment, as purchasers of supplies and equipment, as employers of labor, and as taxpayers—this valuable little reference tool is now in its tenth edition. In it the reader will find hundreds of interesting and little-known facts about America's vast system of railway transportation, together with numerous illustrations which help to visualize the development, operations and functions of the railroads, and the place they occupy in the economic life of the nation.

**WHEELS AND AXLES OF DIESEL LOCOMOTIVES.** 30 pages. Wheel and rail cross sections; color charts. Electro-Motive Division, General Motors Corporation, LaGrange, Ill. Free.

This booklet is designed to relate accepted data on steam locomotive wheels and axles to the special requirements of diesel service, supply such limited new data as are available, and indicate the known effects of stresses transmitted by wheels and axles to rails and structures. The subject matter reflects Electro-Motive experience with 25 million diesel locomotive horsepower in American railroads.

# RAILS

NEW AND RELAYING

## "FASTER FROM FOSTER"

Buy Rails and related Track Accessories from a reliable single source—FOSTER. You save time, money and effort with Foster's large-scale rail warehousing operations. Immediate shipments of any or all your trackage needs—new installations or replacements. We'll match sizes and all specifications to meet your exact requirements on any job. Foster guarantees—all material rigidly inspected before shipment. If, on arrival, it is not entirely satisfactory to you, it is returnable, freight both ways at the L. B. Foster Company's expense.

STEEL SHEET PILING • PIPE • WIRE ROPE • PLATES

### L.B. FOSTER co.

Pittsburgh 30, Pa. • New York 7, N.Y. • Chicago 4, Ill.  
Houston 2, Texas • Los Angeles 5, Cal.

Write for Track Accessories Catalog, R-6







**"CONSIDERABLE  
SAVINGS"**

**with CAT\* Railroad Diesels**

Two powerful Caterpillar D17000 Railroad Diesels power this G. E. 44-tonner owned by Nelson & Albemarle Railway Co. It's one of the more than 90% of the 44-tonners in use on Class I, II, and III railroads that rely on dependable Caterpillar Engines.

C. C. Rothwell, general manager of the N & A, makes it easy to understand this overwhelming preference of railroad men:

"These engines," he reports, "represent considerable savings. They're absolutely dependable. The engineer and conductor tell me that this Cat-powered locomotive is a pleasure to operate. It has plenty of reserve power; it's easy to service and keep clean."

But let's talk ledger-book fundamentals. Here's how Caterpillar Railroad Diesels help you battle rising costs:

1. They stay on the job with proven availability—on some railroads as high as 99.7%.
2. They operate on low-cost No. 2 furnace oil.

3. You get immediate parts service—no need to tie up railroad funds in large parts inventory.

4. There are no parts orphans among Cat Engines no matter what their ages.

You're money and work ahead with Caterpillar Engines on your team. All leading manufacturers of locomotives, cranes and off-track equipment can supply them in the exact size for your requirements. Be sure to specify Caterpillar Railroad Diesels in new equipment. And when you re-power, visit your Caterpillar Dealer. He'll show you the engines that mean money in the bank.

Caterpillar Tractor Co., Peoria, Illinois, U.S.A.

**CATERPILLAR\***

\*Both Cat and Caterpillar are registered trademarks—®

**SPECIFY CAT POWER  
FOR HIGH-PROFIT  
PERFORMANCE**



## Suspension of the Right to Experiment

Fundamental questions are prompted by the action of Division 2 of the Interstate Commerce Commission in suspending piggyback service scheduled by six railroads to start in eastern and central freight territories this month (*Railway Age*, June 21, page 7). The commission, apparently, has decided that the railroad business is "different"—that its management has no right to experiment, on however limited a scale, until all the ancient gods of regulation have been served and the legal niceties disposed of.

The nature of the trailer-lot services proposed by the six roads was definitely experimental. It was to be confined to a few selected points on the rails of, and long served by, the railroads offering it. By no stretch of the imagination could the services be described as an "invasion of territory," because, at each point, pick-up and delivery territory would be confined to the terminal areas within which store-door service has long been accorded railroad less-carload freight.

The rates set forth by the tariffs under suspension are the same as those now charged by the truckers. In some cases they are above, and in others below, the rates for movement in conventional carload lots. Hence the services posed no threat to order or stability nor did they invite a rate war.

The commission has long allowed the motor carriers to utilize the railroads' classification and rate structure as the basis for making their own rates. How, then, can it entertain a doubt about the legality of an experiment in reverse by a handful of railroads on a limited number of commodities between a few points?

What irked the commission's division and produced this unfortunate suspension order, then, is not plain from any survey of the facts. The effect of the order, of course, is bad. It will slow up an important experiment, in which there is wide public interest. It may have the effect of putting on the shelf such investment as any of the six railroads had committed prior to its issuance—although one, the Lackawanna, has announced that it will continue its experiment with the movement in trailer service of certain types of less-carload freight, on standard rail rates,

which service was started earlier this month.

Perhaps the suspension stems from the commission's solicitude for the railroads' limited resources. Maybe the ICC thinks it ought to keep them from spending money on facilities which may be wasted if, later, the operation fails. If so, the ICC is denying the railroads an inherent right of every other business man—the right to make one's own mistakes. In any event, the type of piggyback operation proposed by the six eastern roads requires little investment which cannot be converted easily to other uses. Both cars and trailers are immediately useful for conventional services, and the planned investment in fixed facilities is "shoe string." Compare the cost of simple ramps and approaches with the cost of a new passenger station which is, today, a risky investment. Compare it with the railroads' share of the cost of enforced grade crossing eliminations which produce no additional revenue—only higher property taxes.

In more philosophical states of mind, the commission itself has admonished the railroads to experiment widely to cut costs and expand their patronage. As the eastern railroads' petition for reconsideration points out, the latest annual report of the ICC applauded efforts by the carriers "to search out and experiment with new ideas or methods." In its 1948 report, the ICC urged:

"A thorough searching out of better ways of doing these lesser things which constitute a railroad's day's work must be undertaken. Bold experimentation with new devices and methods seems also to be required in some instances. . . ."

Almost every shipper thus far heard on piggyback has said, in effect: "The more experimentation the better." The monthly *Railway Freight Traffic's* shippers' panel, in October 1953, voted overwhelmingly in favor of wide-ranged try-outs. Most of the few who opposed piggyback did so on the ground that truckers and railroads ought to be kept separate and independent—a stipulation which would be well satisfied in the eastern roads' experiments.

Whom, then, is the ICC protecting?

If the regulators want to have something left to regulate they ought to make it their top priority to help the regulated carriers adapt themselves to a changing market. Adaptation, history teaches, can be accomplished only by experimentation. Any kind of regulation which impedes this right (including freedom to make mistakes) when that right is in the public interest is, *ipso facto*, subject to grave misgivings.



Not-so-safe non-sked airlines get more troop travel...

By **JOHN H. FREDERICK**

Professor of Transportation, University of Maryland

## Why So Much

The Army is the largest single purchaser of transportation, both for passengers and freight, in the United States. The average number of military personnel transported during each of the three years ended with December 1953, for whom transportation was arranged by the Chief of Transportation (persons in groups of 15 or more), was 1,694,330. This large movement within the country represents a lucrative source of traffic.

In June 1953, for the first time, group military movements in this country by commercial aircraft exceeded those by railroad. Air movements continued to be larger until near the end of the year, when the railroads took drastic steps to reduce fares and undercut the planes.

Most group movements by air are handled by so-called non-scheduled irregular operators:

- Their safety record is bad.
- Their financial responsibility is in doubt.

Why then does the Army continue to use them so abundantly?

Find the answer in the accompanying article, by the head of the Transportation Department of the University of Maryland; former transportation consultant for the House Committee on Interstate & Foreign Commerce; economic advisor for the Defense Transport Administration; consultant for the Transportation Association of America; and presently a member of the Advisory Council on Transportation to the Secretary of Commerce.

As shown by the graph on page 51, the volume of group traffic handled by air has grown rapidly. In May 1953 it exceeded that moved by railroad. (It will be noted that air carriers appear to reach a saturation point at slightly over 50 million passenger-miles per month, probably because of equipment limitations during peak periods.) Since traffic is obtained through competitive bidding, the air carriers were underbidding the rail carriers, and would have continued to do so, unless the railroads took steps to fight back.

### Railroads' Weapon

In August 1953, the railroads put into operation measures designed to combat the trend. Quotations considerably under tariff rates were tendered for rail movement of Army personnel under Section 22 of the Interstate Commerce Act.

Air carriers—particularly those irregulars depending substantially on military traffic—felt the impact immediately, and took steps to counter it. They lowered their bids to a level below the railroads' quotations.

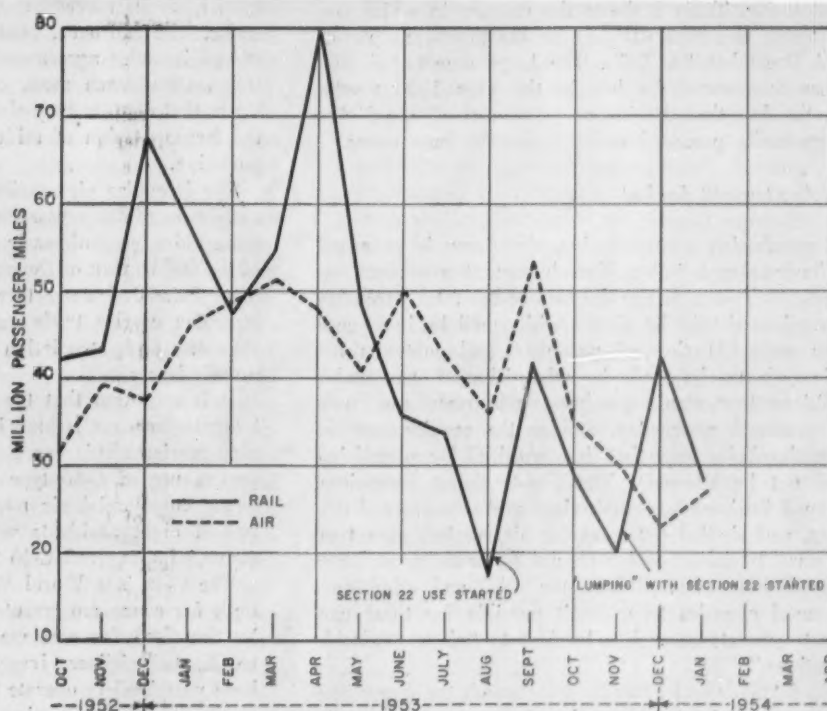
How this was done is not certain, since air carriers are prevented from going more than 10% below tariff rates on file with the Civil Aeronautics Board. Perhaps the charge for "ferry" or empty mileage accumulated on a flight to pick up passengers or to return after delivering a load was charged for at a



...While responsible mass transport railroads get less

## Military Traffic Moves by Air

**MORE TROOPS** moved by air than by rail between June and November 1953. Rate cuts and "lumping" of individual groups helped the railroads to regain some traffic.





## Top level policy, which requires encouragement of "small business" and forces use of lowest-cost carrier, hog-ties Army in routing troops and discourages rail movement.

lower rate than previously—or not at all. Perhaps the irregulars reduced their operating costs. Maybe some of them took losses. If the latter situation now prevails it cannot last long, since the irregulars are notoriously "slim margin" operators.

In November 1953, the railroads adopted another device to overcome the air carriers' rate advantage, by "lumping" group moves. Under this system, they quote a Section 22 rate for a number of groups originating at the same station. Although the groups so lumped may not have the same destination, the quotation is on the total number of men in all the groups. Since the military departments are required to accept the least costly means, this throws the traffic to the rail carriers at least temporarily, with results to January 1954 shown by the graph.

At present, the Army's Chief of Transportation arranges for movement of groups of 15 or more military personnel through the various carrier associations. Transportation supplied by rail, air or bus is predicated largely on awarding the movements to the *least costly qualified carrier*. This kind of business is "tailor-made" for the irregular air carrier operating within the provisions of the safety regulations, and under exemption from the economic regulations, of the Civil Aeronautics Administration and the Civil Aeronautics Board by providing single-trip, plane-load charter service.

Since July 1, 1951, the irregular air carrier has transported an increasingly large percentage of Army personnel traffic. Table I shows the manner in which the total traffic has been divided for the three-year period ended December 31, 1953. The large number of passengers transported by bus in the year 1953 results from the fact that the increased number of air flights was generally preceded and followed by bus moves.

### Army's Straight Jacket

In purchasing transportation, the Army is governed by Congressional policy. Two important provisions require: (1) That a fair proportion of the total purchases for services should be placed with small business concerns; and, (2) that all purchases and contracts for services should be made by advertising—except under conditions that would preclude such procedure (such as a national emergency, and/or the requirements of a situation being such that time required for advertising could not be allowed). The Senate Select Committee on Small Business has emphasized and strengthened this policy, and singled out irregular air carriers as a type of "small business" which should be encouraged. They have virtually directed both the CAB and other governmental agencies to make it possible for these carriers to operate at such a level as to "allow profitable operations."

The methods and procedures by which the Army procures commercial transportation for movement of military personnel are based entirely on policies and di-

rectives established at a higher level of authority than the Department of the Army, any change or deviation from this system would necessarily require changes in these policies and directives. This system, of course, severely restricts the latitude of the Army in attempting to decide whether one or more carriers should not be asked to participate in Army traffic for any reason directly connected with the carrier's performance of the transportation service procured.

Except in rare instances, the qualified carrier quoting the lowest charge on given moves will receive the traffic. Charter aircraft costs are, on the average, lower than other modes of transportation except bus. This accounts for the fact, as shown in Table I, that irregular carriers, since 1951, have received the larger portion of Army traffic moving by air. Irregular carriers have had a larger share of this traffic than have scheduled air lines because they are able to provide considerably more equipment for Army charter moves than are scheduled carriers—not because there have been any significant differences in service costs; charter costs have, at least until recently, varied little between air carriers. Moreover, the CAB limits off-line charter operations of scheduled, certificated air lines to 2½% per quarter of the revenue scheduled miles in the previous 12 months.

### Enter Non-skeds

Prior to July 1, 1951, irregular air carriers did not participate in movement of official military passenger traffic. The railroads, buses and scheduled air carriers moved it under agreements between the Department of Defense and each mode of commercial transportation. Up to that date, as they always had, the railroads moved the larger portion of military traffic in domestic transportation.

The irregular air carriers desired, of course, to participate in military passenger traffic, but were prevented from doing so until early 1951, when, at the insistence of the Department of Defense, the larger operators among them formed a body through which the two existing irregular carrier trade associations were to negotiate. Presently each association deals independently with the armed forces.

It is no secret that the accident and fatality rate of irregular carriers is high in comparison with the scheduled carriers. This can be attributed largely to the extensive use of C-46 type aircraft by the irregulars in Army commercial air movements. Since July 1, 1951, out of eight accidents which occurred in such movements, six involved C-46 type aircraft.

The C-46 is a World War II type aircraft originally built for cargo movements. It has never been approved by the CAB for carriage of passengers by scheduled, certificated airlines. Irregular carriers, have, however, been permitted to operate them not only in Army movements but in transporting the general public. The C-46 has a number of defects, the most glaring of which,



**TABLE I—ARMY PASSENGERS MOVED (DOMESTIC)**

Type of Carrier	1951	1952	1953
Rail	994,179	616,011	466,469
Bus	296,736	708,050	1,230,383
Air	56,543		
Scheduled		75,316*	113,537
Irregular		183,588†	251,826
Total	1,347,458	1,582,965	2,082,217

\*—Nine months only.

†—Includes three months scheduled.

from the standpoint of commercial operation, is that, in order to be operated profitably, it must be overloaded.

Very few of the C-46 type aircraft in operation are owned by the irregulars, but are leased, as are most of their other planes, from the Air Force, at rentals averaging \$1,500 per month since July 1, 1952 (prior to that time rentals averaged only \$300 per month). Since the C-46 is used more in Army charter movements than any other type of aircraft, it is reasonable to assume that, with the higher exposure rate, there will be an increased number of accidents involving this type of airplane.

Some time ago the CAB classified the C-46 as not meeting transport category standards. Operators were allowed until March 31, 1954, to accomplish necessary modifications.

The non-sked seemed confident that they would be given an additional period of time. Their expectations were not in vain. On March 31, 1954, the CAB extended until July 1, 1954, exemption of C-46 transport aircraft from recertification requirements, "to permit further testing and study of the proposed C-46 modifications submitted by interested parties".

Should the C-46 be eliminated as a carrier of persons, the irregular carriers—including the two associations now dealing with the Army, Aircoach Transportation Association and Independent Military Air Transportation Association—would be out of business. Moreover, such an event would automatically solve the problem facing the armed forces in continued use of so-called "high risk" charter operations.

There are, however, many reasons to doubt that such drastic action will be taken by the CAB. On the contrary, it would seem that many forces will be brought into play which will prevent any material change in the situation, and that the C-46 will continue to be used for military traffic. If this proves to be the case, the continued use of this aircraft will mitigate seriously against the irregulars themselves. This is so because another fatal accident involving a C-46 under any circumstances with troops aboard would create such repercussions from the public that there probably could be no alternative but to halt further operation of the plane in any but cargo flights. In this respect, such action would create essentially the same situation as if the board had grounded all C-46 aircraft.

As the situation now stands, the Army looks to the CAB and CAA as lawfully constituted bodies for regulation of the aviation industry and enforcement of applicable safety laws. The Army must operate under the directive that no discrimination be made in procurement of transportation services, and that irregular carriers

are legally authorized to participate in such traffic. Thus, the Army has no alternative in procuring transportation, air or ground, other than that based on appropriate directives, and policies handed down from a higher level of authority.

### What Railroads Face

What really should concern the railroads at this time is the emphasis now placed on productive travel time as it pertains to savings in cost through utilization of air travel. In this respect considerable pressure may be brought to bear favoring more extensive use of air lift in some types of operation as a means of reducing overall costs in the Defense Department.

The air carriers, irregular and scheduled, have joined forces to end the use of Section 22 rates and the system of "lumping" by the railroads. The Air Transport Association is not much concerned with the loss of military grant traffic—which represents a comparatively small part of scheduled airline business—to the railroads, but with the policy principle involved. If the railroads continue to quote lower rates, the ATA proposes to seek an amendment to the Civil Aeronautics Act which would permit the air lines to do likewise—or else seek repeal of Section 22. Independent Military Air Transport Association has petitioned the Interstate Commerce Commission for relief, naming 112 railroads as defendants and charging that they are engaging in "vicious, nefarious, unfair and discriminatory competition" not in accord with the national transportation policy. Aircoach Transport Association, on the other hand, is trying to obtain action by the Department of Defense by emphasizing the net savings by airlift because of "paid time" and meal costs for traveling military personnel.

The case is by no means closed but there is one factor working inexorably against the irregular air carriers. This is the fact that the C-46 is their chief piece of equipment used in moving Army personnel in the United States. This is the greatest weakness of the irregulars. Their safety record gives ample support to the conclusion that no place exists in military passenger traffic for continued use of this plane, and that its elimination is overdue, irrespective of the adverse economic impact such a move may have on the operating carriers. Economic survival of any element of the transportation industry cannot be justified at the expense of loss of life. Failure to ground the C-46 for all but cargo flights will set the stage for additional accidents involving military personnel and commensurate criticism from the public and press. This is so because the Army will be required to use the aircraft, and since the larger portion of air movement takes place in the C-46, accidents can be expected.

**TABLE II—ARMY GROUP MOVEMENTS IN A TYPICAL RECENT MONTH**

Type of Carrier	Number of Movements	Number of Passengers	Passenger-Miles
Rail	340	36,130	47,935,000
Air	890	34,130	47,865,000
Bus (through movements)	430	54,360	10,050,000
Total	1,660	124,640	105,850,000



THE CENTER TRACK, in this section, is signaled for train movements in both directions.

THE BURLINGTON INSTALLS . . .

## New Wayside and Cab Signaling

Four-aspect system, with one or more tracks signaled both ways, increases track capacity and saves train time

Four-aspect, continuously controlled cab signalling and wayside signaling, which involves the installation on locomotives as well as extensive changes in automatic block and interlocking signaling, is being installed on the Burlington. Reconstruction of wayside signaling on three-track terminal territory, between Chicago and Aurora, was completed this year. Also, cab signaling equipment was installed on 130 diesel locomotive "A" units, which are included in a pool that supplies locomotives for all through passenger trains from Chicago to Denver and St. Paul, as well as for suburban trains.

### Four-Aspect System

In this system, the cab signals display four aspects—green for Clear; yellow-over-green for Approach-Medium; yellow for Approach; and red-over-yellow for Restricting. With certain exceptions, a cab signal aspect is the equivalent of the aspect displayed by the last wayside signal which the locomotive passed.

When the cab signal changes to a more restrictive aspect, such as from green to yellow-over-green, a whistle in the cab starts to blow as a warning to the engineman. This whistle continues to blow until the engineman acknowledges the change in aspect by operating his acknowledging controller.

Likewise, four aspects are displayed by the wayside automatic signals, which are the single-unit searchlight type. In such signals, green is for Clear; flashing-yellow is Approach-Medium; Yellow is for Approach; and red is for Stop, or Stop-and-Proceed.

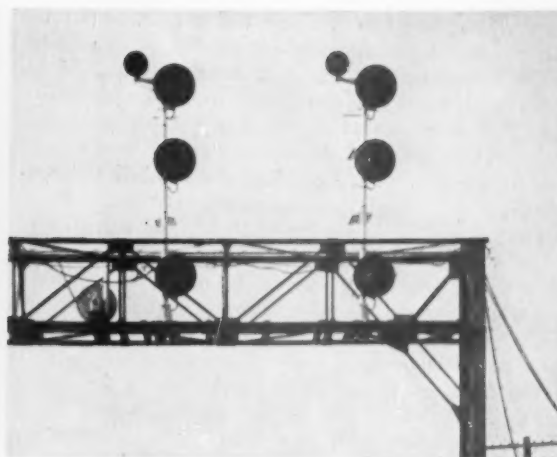
When a diverging route is over a short crossover, which is not good for 30 mph, the aspect on the home signal is red-over-yellow, Restricting; the approach signal displays the yellow aspect, Approach; and the next signal displays the flashing-yellow aspect, Approach-Medium.

When a route through an interlocking is lined up for a train to make a diverging move over a turnout or crossover, good for 30 mph or more, the interlocking home signal displays the Diverging-Clear aspect, red-over-green; and the automatic signal, in approach, displays the Approach-Medium aspect, flashing-yellow. In this instance, the cab signal displays the corresponding Medium-Speed aspect, not only throughout the automatic block approaching the home signal, but also while the locomotive is passing through the interlocking limits.

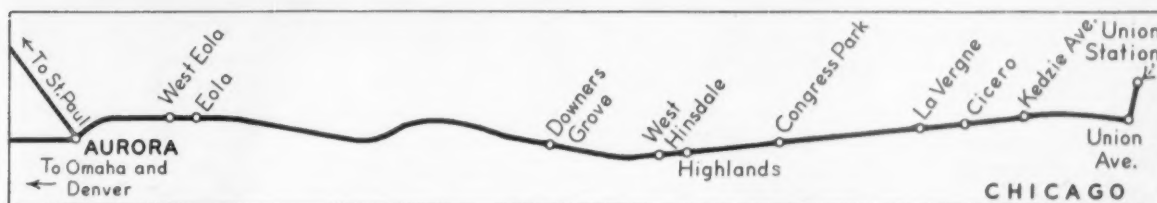
A list, in the timetable, gives the maximum speed for each diverging route in the interlockings which are used for routing trains to and from tracks that are signaled for train movements in both directions. For example, "Downers Grove Track No. 1 to No. 2, good for 50 mph by passenger trains handled by diesel locomotives, operated with electro-pneumatic straight air brakes; 40 mph for other passenger trains; and 35 mph for freight trains." Thus the Diverging-Clear aspect indicates that the diverging route lined up is good for 30 mph or more, and the engineman knows how much more, according to the type of his train and the route in the particular interlocking, as listed in the timetable, for example, 50 mph, as explained above. Thus, the signaling, and timetable, aid enginemen in bringing their trains up to and



THE CAB SIGNAL is at the left, between the windows.



RED WITH LUNAR ASPECT saves train stops.



LOCATIONS OF INTERLOCKINGS are shown on this sketch map.

through crossovers at the speeds for which they are designed. This saves much time.

The aspect of the home signal is governed, not only by the lineup of the route through interlocking limits, but also by track occupancy of the automatic block extending from the leaving end of the interlocking to the next automatic signal. If the route through interlocking limits is lined up, but the home signal is held at the red aspect because a preceding train has not yet left the automatic block, a lunar light, mounted 22½ in. to the left of the top aspect, will be lighted. This aspect, lunar over all-red, indicates stop short of home signal, then proceed through the interlocking, and enter automatic block beyond, at restricted speed, prepared to stop short of train or obstruction.

Thus, the lunar, in combination with the red, converts the absolute Stop aspect to a Stop-and-Proceed aspect. The advantage of the special lunar unit is that it avoids delays to trains under the circumstances outlined. In such instances, the cab signal aspect is red-over-yellow, Restricting, while the locomotive is in interlocking limits, as well as when it is proceeding into the automatic block beyond.

When the preceding train clears the automatic block, the cab signal aspect in the second train changes at once from Restricting to Approach. The Restricting aspect might have been caused by a broken rail; therefore, the rules require that in case of a change from Restricting to a better cab signal aspect, the engineman is to continue at restricted speed for the length of his train before increasing speed.

Previously, intermediate automatic signals were spaced for blocks about 3,000 ft long. As part of the project,



RECEIVER COIL (indicated by arrow) is mounted ahead of leading wheels of locomotive.

all these signals were relocated to space signals about 4,000 ft between Chicago and Downers Grove, and about 6,100 ft between Downers Grove and Aurora.

The Burlington connects with the tracks of the Chicago Union Station east of Union Avenue interlocking, which is at MP 0.86. Aurora is at MP 37.76. Three main tracks extend throughout this 36.9 miles, which may be likened to the main trunk of the Burlington tree. The daily schedule includes 36 through passenger trains, 66 suburban passenger trains, 20 freight trains eastbound, and 22 westbound. This totals 144 scheduled trains daily, in addition to which there are numerous transfer moves and switching. The peak of the traffic is inbound in the morning, and outbound in the evening.

Through passenger trains make no stops between Chicago and Aurora. Local suburban passenger trains stop at all the 26 stations; express suburban trains stop



only at certain stations. These trains must be on the outside right-hand track when making station stops. This necessitates extra crossover moves at interlockings.

Some of the inbound through trains are scheduled during the morning peak period of inbound suburban trains. Therefore, through trains must be run around suburban trains. In the evening, the highball Chicago-Kansas City through freight, scheduled to leave Clyde yard at 6 p.m., goes west through the evening peak of suburban trains. To secure track capacity to handle these peaks, either one way or the other, and to make run-around moves, certain sections of one or more tracks are signaled for train movements both ways, the same as single track.

The track on the north is Track No. 1; the center one is Track No. 2; and the one on the south is Track No. 3. The center track is signaled in both directions throughout the entire 36.9 miles. Between Union Avenue interlocking and La Vergne, 7.2 miles, Track 1 is signaled for westward movements; Track 2 in both directions; Track 3 in both directions between Union Avenue and Cicero, and from Cicero to La Vergne for eastward movements only. Between Cicero and Kedzie avenue, there is a fourth main track which is signaled in both directions. La Vergne is at the west end of the principal freight yard. The north track and the center track are signaled both ways between La Vergne and Congress Park, 3.1 miles. This gives added track capacity, needed because freights stop to set out and pick up cars at Congress Park, which is an interchange with the Indiana Harbor Belt. Also, transfer moves are made between Congress Park and the Burlington yard, east of La Vergne.

All three tracks are signaled in both directions for 1.5 miles between Highlands and West Hinsdale, which includes two interlockings where diverging moves are made between tracks. The north track and the center track are signaled both ways for 12 miles between Downers Grove and Eola. All three tracks are signaled both ways for 4 miles between Eola and Aurora. This is an aid in making run-around moves when freight trains stop to set out and pick up cars at Eola, which is an interchange point with the Elgin, Joliet & Eastern. Thus, in the 114.5 miles of track on the 37.88 miles of road, about 72.2 track-miles are signaled for both directions, and 42.2 miles for one direction only.

### Diverging Moves at 11 Interlockings

Interlockings that include crossovers to route trains between tracks, according to directions of running, are located at Union avenue, Kedzie avenue, Cicero, La Vergne, Congress Park, Highlands, West Hinsdale, Downers Grove, Eola, West Eola, and Aurora. All but two of these plants have been in service for years, but new controls were required as part of the new project. Interlockings at Highlands and West Hinsdale were installed in 1953.

This cab signaling, wayside signaling and crossing protection project was planned and installed by Burlington forces under direction of A. L. Essman, chief signal engineer. Major items of signaling equipment were furnished by the Union Switch & Signal division of Westinghouse Air Brake Company.

## Benchmarks and Yardsticks

**A GOOD MANY PEOPLE** seem to believe that socialism can be successfully combatted by showing that it is to the people's economic disadvantage—in other words, by proving that people are better off materially, on the average, under capitalism. Your reporter believes this opinion is unduly optimistic.

**The essence of socialism** is expropriation—redistributing property and income according to some arbitrary political standard. Most people aren't much interested in increasing the wealth of everybody, but primarily only of themselves. Almost every socialistic scheme is set up to "benefit" some group, and usually the group to be benefited is in favor of the project. Whether or not the enterprise is going to make the country as a whole poorer at the end of a decade—that is something which doesn't especially concern the interested parties.

**Take all the socialistic enterprises** in transportation, for example—such as improved inland waterways, municipal docks and airports, and the tax-free feature of the plant installations of the various public "authorities." Advocates of these projects seldom take into account the possibility that they may be undermining the values of tax-paying urban property, or that they may be drying up investment in privately-owned transportation plant. That is a "long-run" danger—maybe, before the chickens come home to roost, the advocates of these projects will all be dead; and the consequences will confront another generation.

**The most valid**—and probably most effective—argument against socialistic projects is a moral and religious one. Morally, is there any great difference between picking a man's pocket—and mustering up enough votes to deprive him of his property by strictly legal means?

**Marxist socialism** recognizes no God—hence no absolute moral code. Right is what the predominant majority says it is—and if the "proletariat" wants to expropriate the "bourgeoisie," then socialism sees no wrong whatever in that.

**And to demonstrate** how far the socialistic brand of thinking has gone today—just look at all the economic activities (transportation, housing, electric power) government is in, and with the involvement growing all the time. All of these enterprises represent, to a greater or lesser degree, special groups getting property rights at the expense of other people (principally the payers of income taxes). It is only the unintelligent banditti who waylay people in dark alleys nowadays. Such rough methods are no longer necessary, since, by mustering enough votes, the arbitrary transfer of property and income can be effected legally, and without recourse to violence.

J.G.L.





NEW OFFICERS OF THE PUBLIC RELATIONS ASSOCIATION are, left to right: J. D. Parel; Albert S. Baker; George C. Frank; Charles S. Pope; and Robert G. Hodgkin, Jr.

## "PR" MEN CONSIDER "Four Basic Problems"



JAMES B. SHORES, who retired as president of the association, presiding at the first day's opening session.

The four basic problems of the railroad industry are subsidized competition, inadequate rate of return on capital investment, labor conditions, and over-regulation, James B. Shores, director, employee-public relations, Texas & Pacific, said in New York on June 14. Mr. Shores, addressing the opening session of the second annual meeting of the Railroad Public Relations Association, added that each of these basic problems has worsened over the past 25 years.

"I would like to pose three questions," Mr. Shores continued. "Have railroads concentrated too much of their time and effort upon state legislatures and the national capital and too little upon public opinion? Can railroads improve the basic conditions of the industry by expanding the scope of their operations in public opinion? Would a change in the industry's public relations technique and methods produce more effective results?"

### "Golden Nuggets"

"The record suggests that the railroad industry as a whole is not fully convinced that the 'golden nuggets' of good public relations can be produced in sufficient quantities to justify the cost of mining them. As evidence, I pre-



**Panel Discussions:** R. M. Edgar, C. E. Bell, E. C. Nickerson, W. W. Patchell, and George M. Crowson discuss the public relations aspects of passenger traffic while, at the right, Ralph C. Champlin, Ernest W. Williams, George L. Buland, Howard Chase, and James G. Lyne talk over the topic, "How Much Government Regulation?"



**LOOKING OVER THE PROGRAM** are (left), B. E. Young, assistant to president, Southern; and G. H. Kneiss, assistant to the president, Western Pacific, both of whom served as vice-presidents of the RPRA during 1953-1954.

sent the record. Of the 680 railroads in the U.S., 131 are Class I railroads. Of the latter, only 45 have departments devoted exclusively to public relations and related matters.

"But this situation is bound to improve," Mr. Shores concluded, "for our complex economic structure makes it increasingly important that railroads seek the understanding and support of the public, employees and stockholders. Thus it appears that the field of public relations prospecting is bright with hope, with opportunities and challenges."

Warren Guthrie, professor of speech at Western Reserve University, described for the June 14 morning session how to make effective use of television in public relations work. Emphasizing that the "only hope for in-

dustry—or any segment thereof—is to tell its story to as wide an audience as possible," Dr. Guthrie reported the results of a recent survey which indicated that an overwhelming majority of people depend on radio or television as a basic source of information. Despite this, he said, most news releases are still designed for the relatively lengthier coverage provided by newspapers. Brevity, he emphasized, is best suited to meet the needs of radio and television.

For television news, films are a basic necessity. Television newscasters, Dr. Guthrie said, may even select a story thought to be of minor interest to their audiences, if the story is accompanied by, or can be conveyed through, good pictures.

#### **What About Passengers?**

A panel discussion on public relations aspects of passenger traffic also was presented during the June 14 morning session. Panel members, all vice-presidents, were C. E. Bell, Seaboard Air Line; R. M. Edgar, Boston & Maine; E. C. Nickerson, New York Central; and W. W. Patchell, Pennsylvania. George M. Crowson, assistant to president, Illinois Central, was moderator.

"When decision is reached to take off trains," Mr. Bell said, "our experience has been that best results can be obtained by taking the following steps in the order given: (1) Discuss the matter informally with the state commission involved, pointing out non-use of the trains, and losses sustained in the service, and inform them of steps taken to 'scotch' such losses, presenting figures showing that such operations are no longer in the public interest. (2) Discuss the matter with station agents along the route of trains for which withdrawal application is to be made . . . to obtain their support. (3) Discuss the matter with operating crews who will be affected, to sell them on the justice of the railroad's position. (4) Discuss the matter with patrons along the route. (5) Make application to state commissions for withdrawal of trains, supported by such statistical data as is recommended by the National Association of Railroad & Utilities Commissioners. (6) If considered desirable or necessary, place

large advertisements in newspapers along the route, including weeklies. (7) Enlist the aid of persons in the area affected by asking them to testify at hearings in the railroad's behalf."

Mr. Patchell stressed the necessity for making clear to the public the basic facts, and future implications, of subsidized versus unsubsidized travel facilities. "They aren't the kind of facts it is fun to present," he said, "and our presenting of them will make some of our competitors mad. We'll have to use tact and we'll have to use skill. We will have to rely on our advertising and public relations colleagues for help with the shadings. But the truth will have to come out; no one but ourselves is going to bring it out; and I am sure that we will make little headway with our passenger loss until we do."

### **A Most Essential Element**

One of the most essential elements in the battle to reduce the passenger deficit, Mr. Edgar said, is the closest possible working relationship between public relations officers and operating, traffic and legal departments. "I think the most effective way to get the economics of transportation across to people is to put it to them in terms of their own business and experience. . . . The atmosphere can be considerably improved by use of legitimate publicity in helping to create the atmosphere of aggressiveness and a desire to serve the public, while at the same time taking unpopular steps to eliminate losing services. . . . You men who are public relations experts know this, but I think it is important to reemphasize it because there is frequent disagreement as to what is worth publicizing and what isn't. I urge you to stand by your own convictions in this regard and not be swayed by the judgment of colleagues not experts in the field."

Mr. Nickerson said that for a railroad, effort spent on public relations and promotion of its service has greater opportunity for return than in many other industries. "For example," he added, "a few years ago one railroad wanted to reduce its passenger service on one of its main lines. At the time it did this, it also speeded up and improved its other service, all attended with an effective public relations and promotion campaign. As a result, the public took little cognizance of the curtailment. . . . It is essential that all employees—officers, supervisors and all the way down the line—be instilled with a public relations point of view, so that in their thinking, decisions and action they will give it proper cognizance in relation to the overall problem. It never will be easy, but it is something that we must constantly keep after, day after day, year after year, to reap the benefits we want and so badly need in our industry."

"How Much Government Regulation?" was the topic of a panel discussion during the afternoon of June 14. James G. Lyne, editor, *Railway Age*, was moderator, and panel members were George L. Buland, vice-president and general counsel, Southern Pacific; Ralph C. Champlin, vice-president—public relations, PRR; Ernest W. Williams, associate professor of transportation, Columbia University; and Howard Chase, of Selva, Lee & Chase. Mr. Chase substituted for Franklyn Waltman, director of public relations, Sun Oil Company, who was unable to be present.

The real test of the efficacy of any public relations mes-

sage or activity, Mr. Champlin said, is what happens in the mind of the audience. "So far, we railroad public relations men have failed almost completely in our most important assignment. In a recent survey only 7% of the general public thought railroads should have less public regulation than they have now and 11% thought they should have more regulation. Fifty-seven per cent said regulation should stay about the same as now and 23% had no opinion. On the question of whether truck lines, bus lines and air lines paid less than their fair share of state and local property taxes, only 24% said trucks pay less than their fair share, 15% said bus lines pay less than their fair share and 10% said air lines pay less than their fair share."

Mr. Buland told the meeting that those engaged in public relations "must paint with a broad brush in influencing public opinion. It is useless to attempt to enlist public support for many meritorious bills, because they are too technical or lack public appeal. Most tax proposals are of this character. I have wondered whether the 'time-lag' bill lent itself very well for selling to the public."

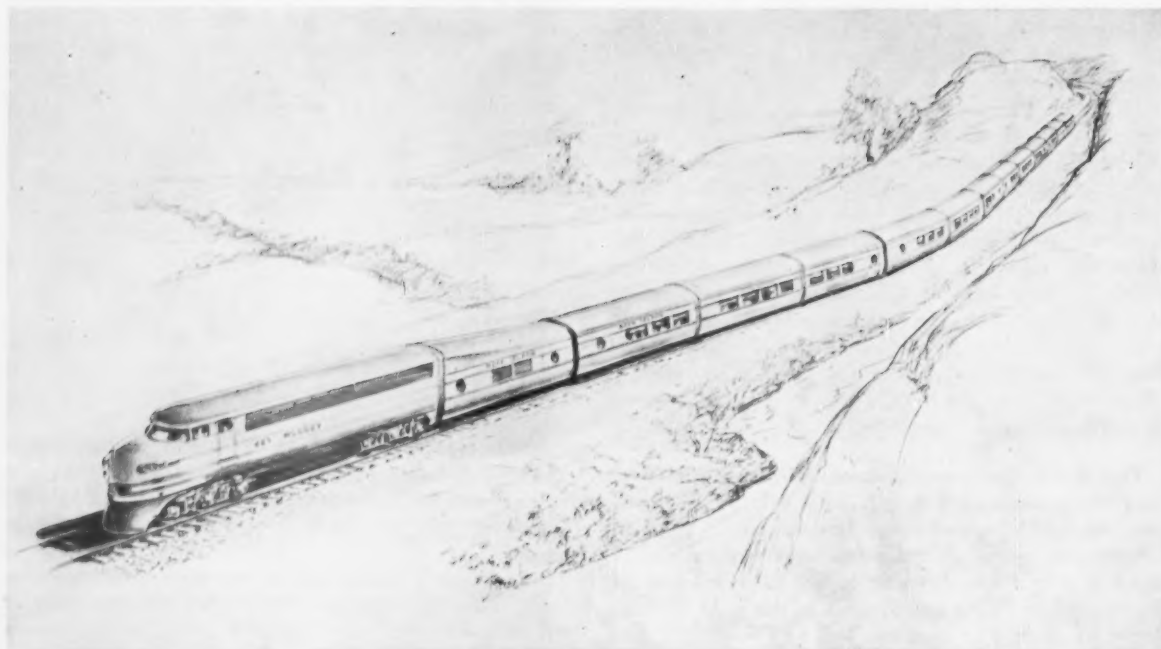
Professor Williams said he sees no compelling necessity to continue the power to fix maximum rates and that the minimum-rate power should be exercised only to prevent rate wars when rates are clearly non-compensatory. In addition, he advocated elimination of the long-and-short-haul clause, reduced regulation which would be applied equally to all for-hire transportation, and assertion of federal authority where states refuse to permit abandonment of unprofitable services.

Speakers at the final session on June 15 included Theodore F. Koop, director of radio news and public affairs, Columbia Broadcasting System; Harold A. Burroughs, traveling representative, public relations department, Santa Fe; J. Carroll Bateman, assistant chairman, Eastern Railroad Presidents Conference; Robert L. Barbour, director of public relations, Jersey Central Lines; and B. E. Wynne, controller, Western Maryland.

Mr. Burroughs described public relations techniques used by the Santa Fe when launching its new streamliner, the "San Francisco Chief" (*Railway Age*, June 7, page 33). Mr. Bateman discussed the ERPC's program to win more railroad friends at the "grass roots" level (*Railway Age*, January 11, page 16), and Mr. Barbour told how the JCL used effective public relations in working out revised passenger-train schedules (*Railway Age*, June 14, page 67). Mr. Wynne's subject was "Operations Research," the new management tool to study and improve railroad methods and procedures (*Railway Age*, April 20, 1953, page 71, and March 8, 1954, page 74).

### **New Officers Elected**

George C. Frank, assistant to president, Erie, was elected president of the association to succeed Mr. Shores. New regional vice-presidents are: Western—Charles S. Pope, vice-president, Soo Line; Southeastern—Robert G. Hodgkin, Jr., public relations representative, Atlantic Coast Line; and Eastern—Albert S. Baker, executive assistant to president, B&M. J. D. Parel, manager of agricultural relations, Association of American Railroads, was reelected secretary-treasurer.



THE "JET ROCKET" is a departure from tradition in passenger-train design, which may introduce some new concepts in passenger service, too.

ROCK ISLAND BUYS . . .

## First New-Type "Talگو"

By a letter of intent to purchase, the Rock Island has committed itself to buy from ACF Industries, Incorporated, a passenger train completely unlike anything now in revenue service on American railroads. It will combine many of the basic design features of the "Talگو" train and other low-slung light-weight high-speed trains of contemporary European design.

Tentatively named "Jet Rocket," the new train will be introduced in the Rock Island's Chicago-Peoria service which is currently handled by the "Peoria Rocket," the first streamliner acquired by the RI back in 1937. As now conceived the new train will consist of four cars offering a total seating capacity of 300. Each of these cars will be comprised of three units, articulated as shown in the accompanying sketch. The train, costing approximately \$600,000, will weigh about half as much per seat as conventional streamline equipment. With the "Jet Rocket's" introduction late in 1955, the Rock Island hopes to put in effect a new concept of passenger service embodying all-reserved coach-type seats for which a first-class fare (about \$1.50 more than coach rates each way) will be charged. For this passengers will be entitled to a free meal enroute, much in the manner of current air line travel.

To get detailed information for *Railway Age* readers, a team of reporters interviewed President J. D. Farrington. Here are some of the highlights of that interview:

**Q. Will the new train be locomotive hauled?**

**A.** Yes. We plan to use a conventional diesel locomotive modified in appearance. This is to permit use of substitute power should conditions require.

**Q. The trend in streamliners over the past two decades has been toward longer and heavier trains. The "Jet Rocket" reverses that trend. Why?**

**A.** When the Burlington, under Ralph Budd, introduced the "Pioneer Zephyr," we were in a depression. I personally feel we were all wrong when we subsequently turned to buying heavier trains, because we lost sight of the original objectives of the low-cost high-speed train. War conditions, it turned out, temporarily justified the long, heavy train by creating high volume passenger traffic.

**Q. Why was the Peoria run selected?**

**A.** For several reasons. Our load factor there is fairly constant. The service is somewhat isolated from our other operations, and it is close at hand and easy to watch. The distance is 161 miles, and we get good equipment utility by making two round trips daily.

**Q. How does the "Jet Rocket's" cost and flexibility compare with the present "Peoria Rocket"?**



**A.** The new train will cost approximately \$600,000, excluding locomotive, and will offer 300 saleable seats. The present train cost approximately \$405,000, including locomotive, back in 1937, and originally offered 160 seats in three cars. Subsequent traffic developments required use of additional cars, up to a maximum of eight coaches. The new train will be somewhat less flexible than the old, in that reserve "set" equipment cannot be utilized elsewhere during non-peak periods.

**Q. What led you to consider a train of such radical design?**

**A.** I have long been interested in finding practical equipment that weighs a lot less than our present passenger cars. Your recent article on the German motor trains (*Railway Age*, March 15 and March 29) showed me that equipment weighing half as much as ours, can be successful from the standpoints of passenger comfort and safety. All in all it looked like you were showing us something that would "click."

**Q. Would you say this type of train has possibilities elsewhere on the Rock Island system?**

**A.** With the quite evident trend of declining passenger volume, a train of this type would appear to be pretty much the answer to our needs even in long-distance runs. Interior dimensions of the German trains seem entirely adequate for our sleeping car needs. I was particularly intrigued with the meandering aisle arrangement of the German sleeper train.

**Q. Will the train have any dome car units?**

**A.** No.

**Q. What is the inside width and height?**

**A.** About the same as present standard passenger cars.

**Q. What about floor height above the rail?**

**A.** Somewhere between the 18¾ in. of "Talgo" and the standard 51 inches—probably about 25 in.

**Q. Will this train meet the AAR 400-ton buffing strength requirement?**

**A.** Yes.

**Q. Do you feel that this much strength is necessary in such light equipment?**

**A.** Not if this equipment is not mixed with present cars. Actually, my principal concern is that the train be headed by a heavy locomotive for protection in grade crossing accidents.

**Q. Will the train have a centersill?**

**A.** Yes, although tying the two sides, bottom and top together as a tube without a centersill as the Germans do should give adequate strength and safety.

**Q. How will people enter and leave the cars?**

**A.** At the end of each car.

**Q. What will be the basic structural material of the train?**

**A.** No definite decision has as yet been reached between aluminum and high tensile steel. If, we chose the latter, the outside sheathing would be stainless.

**Q. How will you heat the train?**

**A.** By electricity, with an extra generator for extreme cold weather.

**Q. Will the train have pendulum suspension?**

**A.** Yes, to increase the comfort speed around curves.

**Q. What type coupling arrangement will be employed?**

**A.** Probably conventional tight-lock couplers between the three-unit cars. Individual units of each car will be separated only for major repairs.

**Q. Will this permit coupling with present equipment?**

**A.** No, because coupler heights will be lower.

**Q. Why did you choose single-axle trucks?**

**A.** Originally we leaned toward a lightweight four-wheel truck, but the success of the "Talgo," the new German day train, and other European trains with two-wheel trucks, changed our mind, and we thought it would be worth giving the single-axle truck a trial.

**Q. What type springs will you use—coil, leaf, rubber or air?**

**A.** This detail has not been settled, but the truck will contain a substantial amount of rubber. This will be necessary because the single-axle truck, while it rides better, is somewhat noisier.

**Q. Will the trucks have journal box pedestals?**

**A.** We are not sure at present.

[The new-type Talgo train to be built for the Rock Island is based on the principles first utilized in two trains built by ACF which have been operating in Spain for over three and a half years. An article entitled "Three Years of Talgo in Spain," beginning on page 77 of the October 5, 1953, *Railway Age*, described several changes in the original Talgo design, some of which had already been incorporated in the Spanish trains and others of which have been under development by the builder for employment in further applications of the Talgo principle. These changes permit completely interchangeable articulated vehicles with closed vestibules at each end, and joined by tight-lock couplers into train consists. Unlike the original Talgo, these articulated coaches can be operated in either direction with equal facility. The design proposals contemplate standardized shells to accommodate any interior arrangement—coach, diner, parlor or various types of sleeping accommodations, as desired.

[The German train to which reference is made in the interview was designed following observation of the original Talgo trains in Spain.—EDITOR.]



BACKWATERS from the record 1937 flood in the Ohio river filled Bay creek; topped a divide between this creek and an ancient channel of the river; flowed across the southern tip of the state of Illinois, and eventually entered the Mississippi river. These flood waters crested four feet above tracks of the Illinois Central's Edgewood cut-off, and washed out portions of this line between Reevesville, Ill., and Big Bay. The federal government has eliminated the possibility of a recurrence of this disaster by constructing a levee along the old divide, with the result that three long bridges constructed during the washout repairs are now longer required.

WITH FLOOD DANGER REMOVED . . .

## IC Fills Three Long Trestles

Project featured by production-line methods of loading and handling filling materials, close cooperation between operating and m. of w. departments



**Excavating & Loading:** BULLDOZERS move filling material to edge and push it over, while crawler shovels, working in area between track and cut face, load material in air-dump cars.



## Dumping & Spreading:

AUXILIARY AIR from compressor car was used to dump some of the cars. Filling material was unloaded at the bridge in two spottings of the work train.

Rebuild or retire? That was the question faced by the Illinois Central when three long open-deck pile trestles on its Edgewood cut-off recently reached retirement age. Investigation disclosed that flood conditions which had dictated their original length no longer threatened. Since suitable filling material was readily available, and the railroad had the means for moving it into place economically, it was decided to shorten the bridges materially by filling portions of them.

The Edgewood cut-off, a single-track freight line, is a vital link in the railroad's north-and-south route between Chicago and St. Louis and New Orleans. It is currently handling 24 heavy freight trains daily.

The bridges in question, located between Reevesville, Ill., and Big Bay, aggregated 1,905 ft in length. They were built to replace previously existing bridges having an overall length of 196 ft, which were washed out by backwaters of the record Ohio River flood in 1937 (see map). However, since the flood, the federal government has constructed a levee along the crest of an old divide to prevent a recurrence of the disaster, with the

result that the function of the bridges was reduced to the handling of local drainage only. Therefore, since the decks of these structures had reached the limit of their economic life and complete renewal was required; if they were to be continued in service, the decision was made to restore them to about their original lengths.

## Filling Material Available

The necessary quality and quantity of filling material was found to be available adjacent to a siding laid through a cut about three miles south of the most northerly of the three structures. To prepare the loading site, the cut on the side adjacent to the side track was widened by an amount sufficient to provide clearance for operation of loading machinery between the face of the pit and cars spotted on the track.

To supply spoil for the loading operation, bulldozers moved material from the borrow pit, located in the area between the top of the cut and the right-of-way line, to a windrow along the upper edge of the cut. This loose material was then pushed over the edge of the cut to within reach of the loading equipment.

Two diesel-powered shovels, equipped with  $\frac{3}{4}$ -cu yd buckets and operating in the widened cut, loaded the loosened material into air-dump cars. In addition to these two shovels, two draglines, also equipped with  $\frac{3}{4}$ -cu yd buckets, worked near the southerly end of the track, loading directly from material in the bottom of the borrow pit.

The work train consisted of a locomotive, eleven 20-cu yd air-dump cars, a compressor car, seventeen 30-cu yd air-dump cars, and two cabooses, one at each end of the train. Each time the work train was being backed into the siding for loading, one of the shovels placed a large dipper-full of cinders into each car as it passed. The purpose of the cinders, which were spread over the bottoms of the cars as they moved into position for loading, was to make the cars dump clean when unloaded.

## Loading Operations Balanced

For loading purposes, a cut of five 30-cu yd air-dump cars was spotted opposite each of the two draglines at the southerly end of the pit. The remainder of the train



DRAGLINES, working at the southerly end of the borrow area, also load material dug directly from the pit bottom.





## Dumping & Spreading: DUMPED CARS cleaned themselves easily. Jordan ditcher and spreader, coupled back to back, were used for forming . . .

was then pulled back intact to the northerly end of the borrow pit. During loading operations each unit of loading equipment traveled the length of its respective cut of cars. The average loading rate of the shovels was 12 min per 30-yd car. The loading rate of the draglines was somewhat slower, as this equipment was working with compacted material. Because the cuts of cars were balanced in accordance with the respective production rates of loading units, all machines were generally able to finish their loading assignments simultaneously. Approximately 80 min were required to spot, load and recouple the train after arrival at the pit.

One of the unusual features of this job was the use of a compressor car as an auxiliary air supply. This car, located at about the center of the train, consisted of a flat car mounting a 210-cu ft compressor and a 105-cu ft auxiliary compressor for standby service. These compressors were connected to a 4-ft x 10-ft air storage reservoir. The compressor car furnished the air for dumping the entire train, with the exception of the four cars closest to the engine, which were handled from the train line. Use of this auxiliary air supply reduced the load on the train line and is reported to have eliminated operational delays caused by emergency brake applications which would have resulted from low air.

### Cooperation Expedites Work

When the train arrived at a bridge, it pulled ahead so the rear half of the train was spotted at the dumping location. After this section was dumped the train was respooned and the forward half dumped at the same location.

The round trip from the pit to the unloading point and return required an average of 40 min. Close cooperation with the operating department permitted the work train to take advantage of every traffic break with a minimum of delay to the work train and to revenue traffic. A complete cycle of operation could be completed in two hours. This, with allowances for unavoidable delays, resulted in an average of three round trips per working day.

Fill material handled on this project was excavated, loaded, transported and placed at an average cost of 50 cents per cu yd.

During construction of the embankments, and between trips of the work train, a crawler bulldozer spread the



. . . COMPLETED FILL, which will be allowed to settle before removal of bridge deck and installation of ballast.

filling material as necessary. A Jordan spreader and a spreader-ditcher, coupled back to back to permit them to be operated in either direction, were used to complete formation of the fill. Some back spreading was done with the spreader to force loose fill material under the track when the working space below the bridge was inadequate to permit performing this operation with the bulldozer.

### Cable for Pulling Caps

Before filling operations were started, a length of scrap cable was looped around one end of each of the bridge caps. The ends of this cable were then nailed to a tie directly over the bent. These pieces of cable were installed to permit pulling the caps when the decks of the bridges are removed. Following removal of the deck, the track will be ballasted.

The work of removing the deck and ballasting will be undertaken later this year, after the fill has had sufficient time to settle and consolidate itself.

The project is being carried out under direction of C. I. Van Arsdalen, division engineer, Carbondale, Ill., and under direct supervision of L. H. White, supervisor of bridges and buildings.





PRESIDENT JOHN W. DEVINS and Executive Committee Chairman Ben W. Heineman. Many policies and practices will be re-examined; the possibilities in merger and piggyback explored. But the new management says it has . . .

## "No Spectacular Plans"

FOR THE MINNEAPOLIS & ST. LOUIS

At the first meeting of the new board of directors of the Minneapolis & St. Louis, held in Minneapolis May 26, John W. Devins was re-elected president of the company. His re-election was one of several steps taken by the "investors" group to activate the program proposed during their recent successful proxy contest (*Railway Age*, May 17, page 13). Others include:

- Transferring the corporate office from New York to Minneapolis, where the road is headquartered;
- Abolishing the former position of secretary at New York and electing M. E. Eaton, former assistant to president at Minneapolis, as secretary of the corporation;
- Designating Minneapolis as the regular board meeting place;
- Electing G. A. Anderson (former vice-president, finance and accounting) as vice-president and comptroller; and
- Re-electing C. W. Wright, vice-president and general counsel; R. W. Nelson, vice-president and traffic manager; E. G. Gustafson, resident vice-president in Chicago; and J. B. Helwig, resident vice-president in Los Angeles.

Ben W. Heineman, spokesman for the group during the proxy battle, was named chairman of a five-man executive committee. The position of chairman of the board, held until the May 11 shareholders' meeting by former President Lucian C. Sprague, was abolished and Mr. Devins will preside at future board meetings.

Mr. Heineman told *Railway Age* that his winning group has "no spectacular plans" for the now-successful

1,397-mile road, which not too many years ago was bankrupt and on the verge of dissolution. "Our first duty is to see that Mr. Devins gets what he needs to run the property," he said.

Initially, he explained, the management was working toward an economy program in which greater use of cost-saving methods and equipment rather than mere "belt-tightening" would be the keynote. He pointed out that while the new board brings to the M&StL a varied business background with considerable experience in the public utility field and some in the railway field, "we admit to having much to learn about railroading."

He said the management would like to study—"without interjection of sentiment or tradition"—a number of fundamental business principals not now generally applied to railroading. "For example: A traffic solicitor is basically a salesman. Why should he not be given the same incentive of salesmen in industry—a bonus system? We may find perfectly valid reasons why such an idea won't work, but we feel that it certainly warrants an objective study." Re-examination of many M&StL policies and practices is contemplated in this same light, he stated.

### Merger?

"The possibility of merger is very plainly on our minds," Mr. Heineman admitted. He declined, however, to make any further comment other than to point out

that, with present Wabash connections at Albia, Iowa, the through route from Minneapolis to St. Louis is some 140 miles shorter than via Peoria and the Illinois Terminal. (The IT, along with the Toledo, Peoria & Western, is frequently mentioned in current merger speculation.)

Piggyback "seems to be in the wind for most of the industry," he observed, "although it appears questionable for a road like the M&StL. It is a subject that will be given high priority for objective study, however."

Fully dieselized, and with almost all its freight equipment virtually new, the M&StL will have no immediate occasion for large equipment purchases. During the near future at least, the road must: (1) Concentrate on "selling" itself to the shipping public; (2) work hard at industrial development to create more on-line traffic sources; and (3) be unafraid to invest money in "cost-savers," Mr. Heineman feels. "As in any good business enterprise, our board will merely determine policies. Mr. Devins, as chief executive officer, has our full support and a free hand with which to carry them out."

### With Road 30 Years

Mr. Devins was first elected president last February 27 when he succeeded Mr. Sprague—the man generally credited with having saved the line and rebuilt it to a point of usefulness and prosperity—who then became chairman of the board.

In the M&StL's rebirth and rebuilding Mr. Devins, too, has played a key role from the beginning as head of its operating department continuously since 1934. In the latter year, when the road was about to enter its most critical period, two opposing forces sought to shape its future. One moved toward dismemberment and sale of the fragments to neighboring roads, with abandonment of the least desirable segments. The other force moved toward preservation of its integrity and a rebuilding program designed to lift the long-neglected property by its bootstraps. John Devins chose to ally himself with the latter force.

The new president came to the road in 1924, one year after it went into the bankruptcy courts. Ten years later, when he became head of its operating department—after serving successively as yard conductor, yardmaster, trainmaster, division superintendent and assistant to general manager—the M&StL was still in bankruptcy. A year later Mr. Sprague came to the property as co-receiver and, with Mr. Devins as operating head, they began an intensive program to head off the movement toward dissolution of the property. The means by which the team succeeded in proving that "the doctors were wrong about the death of the patient" are now part of the legendry of the railroad business.

Mr. Heineman has been a member of the firm of Swiren & Heineman since 1945. He received his law degree from Northwestern University and, since he was admitted to the bar in 1936, has practiced corporate and utility law. He served as legal advisor and assistant director of the North African Economics Board in Algiers in 1943, a time during which he also served on the civil affairs staff of Major General Dwight D. Eisenhower's command and as assistant to Robert Murphy, then ambassador to the French government. Prior to that he was assistant general counsel and chief of the court

review branch of the Office of Price Administration in Washington. More recently, he was appointed special assistant attorney of the State of Illinois. In 1951 he represented a group of Chicago Great Western preferred shareholders in a suit which compelled that road to pay some \$3.4 million in preferred dividend arrearages.

### LUCIAN C. SPRAGUE



Lucian C. Sprague, the retiring M&StL chairman and former president, has completed 55 years of service in the railroad industry, during which time he has been affiliated with six other railroads besides the M&StL.

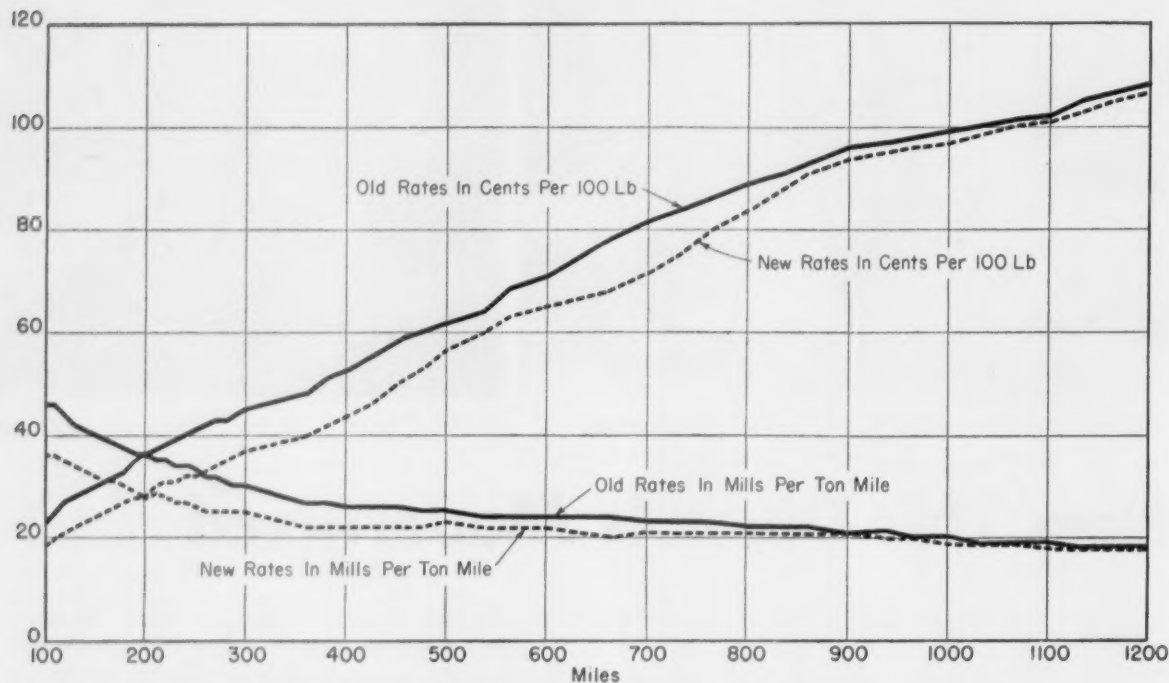
He first joined the Burlington as call boy in 1899. After working as block operator, machine apprentice, locomotive fireman, brakeman and engineman, he joined the staff of International Correspondence Schools as locomotive expert and air brake inspector. From 1912 through 1915 he was with the Great Northern and from then until 1917 with the Baltimore & Ohio. He then joined the Chicago Pneumatic Tool Company, where he acted first as general sales manager at New York and later as general manager of the railroad department at Chicago. From 1920 to 1923 he was a consulting engineer on his own account. During this period he did consulting work for the Denver & Rio Grande Western.

In 1923 he was elected vice-president and general manager of the now-abandoned Uintah Railway and the Gilson Asphaltum Company at Mack, Colo. From 1929 through 1932 he was executive vice-president of the Dardet Threadlock Corporation at New York. He was serving as executive representative of the Missouri-Kansas-Texas when, on January 1, 1935, he was appointed receiver for the M&StL at Minneapolis. When reorganization of the road was completed in 1942 he became its president. When Mr. Devins was elected president last February, Mr. Sprague was elected board chairman.

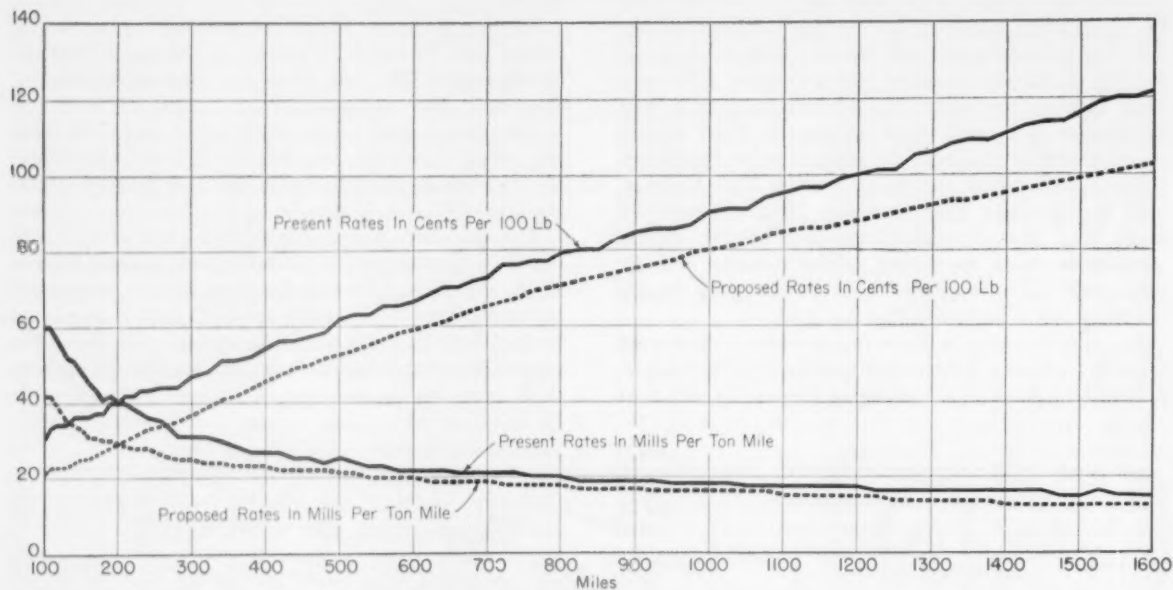


# How the New Rates Look

Charts\* show the patterns, both per ton-mile and per 100 lb, of two of the East's new competitive rate schedules, disclosing emphasis on the shorter hauls



**Iron & Steel Products**-- Old and new (March 26, 1954) rates provide minimum load of 40 tons, within Official Territory (excepting within Central Freight Association).



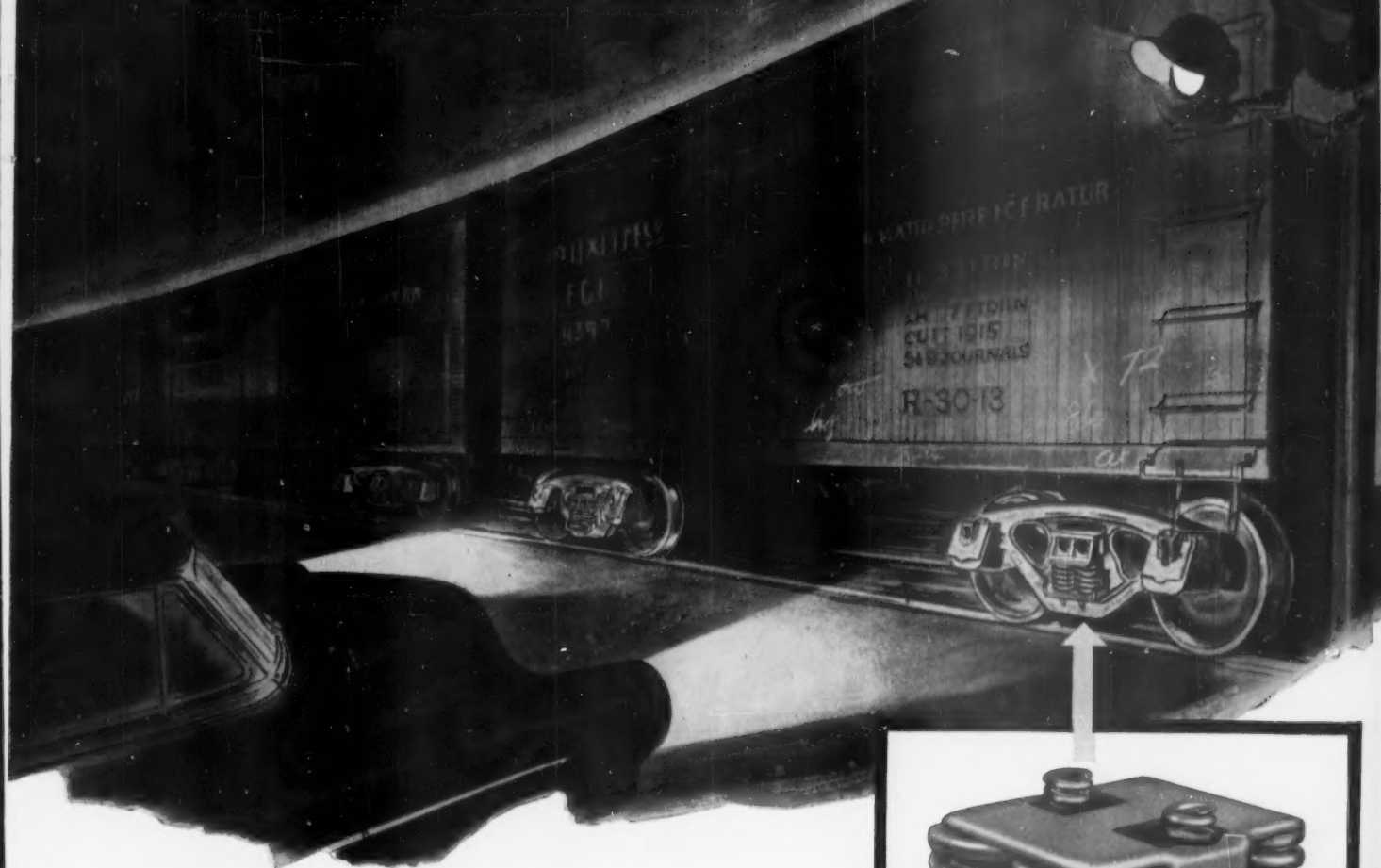
**Paper**-- Present and proposed rates are rated Col. 27½ J, within Official Territory—carload minimum raised from 18 to 25 tons.

\*Charts prepared from data supplied by courtesy of Vice-President A. E. Baylis of N. Y. Central.



# NATIONAL SNUBBER PACKAGES

give your old cars a smooth  
friction-controlled ride

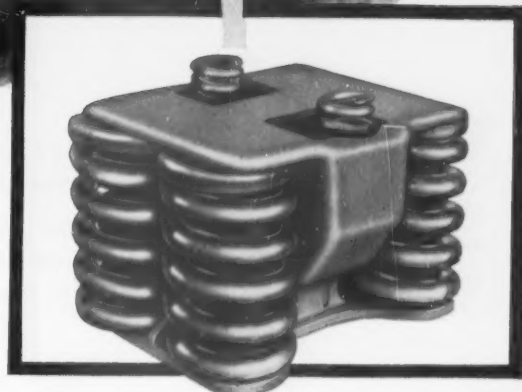


Now you can equip your old freight cars with National Snubber Packages that operate on the same friction-control principle (with the same extra-large friction surfaces to reduce wear) as the National C-1 truck. The riding qualities of this outstanding car truck can now be obtained in the National Snubber Package.

This Snubber Package fits easily between narrow side-frame columns, and can be applied to approximately 90 percent of old non-friction-control trucks in service. With no pre-compression of wedge or load springs, the National Snubber Package *can be inserted into the side frame by hand, much as a load spring cluster is applied.*

A-9743

For more and satisfied shippers use National Snubber Packages!



NATIONAL SNUBBER PACKAGE uses either AAR Alternate Standard 2½" deflection springs (coupler still remains below maximum permissible height of 34½") or 1936 AAR Standard 1¾" deflection springs. The Snubber Package can be supplied with or without springs.

**NATIONAL MALLEABLE and STEEL CASTINGS COMPANY**

Cleveland 6, Ohio

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • SNUBBER PACKAGES • JOURNAL BOXES and LIDS



*"Progress through Research"*

# 359

# NEW

# FOR



# DIAMOND "S"®



2427

# **PASSENGER CARS**

## **ARE EQUIPPED WITH**

### **BRAKE SHOES**

Proved through years of service under all weather conditions, metal brake shoes with clasp brakes have again been selected as the safest, most dependable, most economical method of stopping modern trains.

AMERICAN

**Brake Shoe**

COMPANY



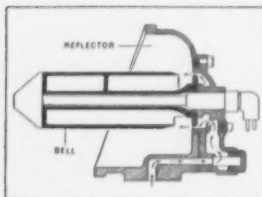
**BRAKE SHOE AND CASTINGS DIVISION**



Sounds *exactly* Like  
A STEAM WHISTLE...



It's the new  
**HANCOCK AIR WHISTLE**  
for Diesel-Electric Locomotives



For safety's sake, more and more Diesel-Electrics are being equipped with the new Hancock Type 4700 Locomotive Air Whistle. It sounds *exactly* like the old familiar steam whistle, yet air consumption is so low, the efficiency of the air-brake operation is in no way affected.

The Hancock Locomotive Air Whistle has no moving parts—no adjustment possible or necessary. It always sounds the same pleasing 3-note chord. Carrying power is excellent. The bowl-like reflector stimulates air motion—amplifies the sound; swirls it out in all directions. The whistle can be heard clearly more than two miles away, yet is not objectionable to the human ear close by, nor injurious to the hearing of engine crews. Furthermore, those who live within the range of the Hancock Air Whistle prefer the call of the time-honored steam whistle it duplicates so precisely.

The new Hancock Type 4700 Locomotive Air Whistle culminates more than 50 years of experience in manufacturing locomotive whistles. Learn all about it. Write for complete information today.



**MANNING, MAXWELL & MOORE, INC.**

Railway Equipment Sales  
Watertown 72, Massachusetts  
Makers of 'Hancock' Valves, 'Ashcroft' Gauges, 'Consolidated' Safety and Relief Valves, 'American' Industrial Instruments, Aircraft Products, Builders of "Shaw-Box" and "Lead Lifter" Cranes, "Budget" and "Lead Lifter" Hoists and other Lifting Specialties.

# SUPERIOR

... supplier of

## FARLOW DRAFT GEAR ATTACHMENT REPAIR PARTS

Price list available on check plates, following blocks, yoke fillers, spring spacers, back stops.

**YOUR BEST SOURCE FOR CAR AND LOCOMOTIVE CASTINGS** in steel and malleable iron.

Engineered open hearth and electric steel castings to 30,000 pounds . . . certified malleable iron castings to 300 pounds.

Send for details on *Superior's* complete engineering stress analysis, product development, machining and welding services.

Over 35 years of service  
to the railroad industry.

**SUPERIOR STEEL AND  
MALLEABLE CASTINGS CO.**  
Graham Avenue, Benton Harbor, Michigan

### ROLLING STOCK

40 Ton Steel Sheathed Box Cars  
50 Ton All Steel Gondolas  
70 Ton All Steel Gondolas  
8000 Gal. Tank Cars C.I. III  
Coiled—Non Coiled  
50 or 70 Ton Flat Cars 40' Long  
30 Yd. Magor Drop Door Cars  
20 Yd. Koppel Lift Door Cars  
Jordan Spreader  
Locomotives—Car Parts—Tanks

### HYMAN-MICHAELS CO.

122 S. MICHIGAN AVE.  
CHICAGO 3, ILL.

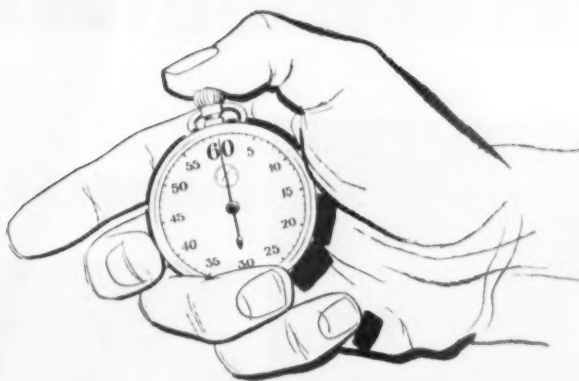
San Francisco Los Angeles St. Louis New York



### YOUNGSTOWN STEEL CAR CORPORATION

NILES, OHIO

Large scale producers of . . . big weldments on a production basis—die pressed channels for bus, truck and trailer chassis—railway cars, repairs and parts—miscellaneous heavy presswork.



# GOT A MINUTE?

**It takes even less to install Alcolid  
and it's set for a Lifetime!**



**FIRST** . . . align holes in the lid with holes in box and insert the square-headed retaining pin



**THEN** . . . push the lid down to put spring under pressure and withdraw the shipping pin



**FINALLY** . . . close the lid by pushing all the way down. Bend ear over head of the retaining pin

**NO PIN ROTATION—NO EYE ELONGATION**

*Your Alco sales representative will be glad to give you full information.*

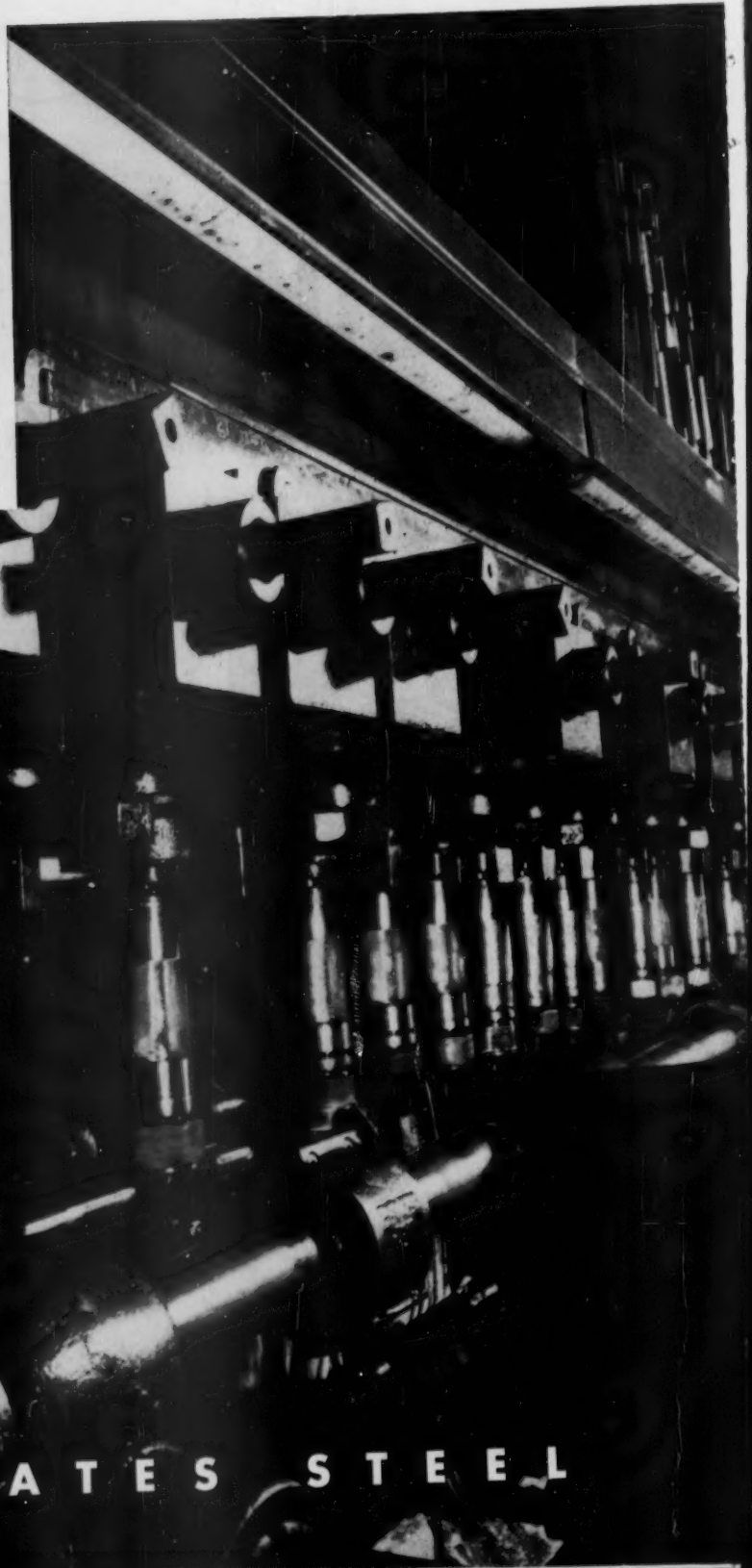
# ALCOLID<sup>®</sup>

**AMERICAN LOCOMOTIVE COMPANY**

Sales and Service Offices in Principal Cities

# "Precision drilling is a


**SAYS** *Boyd Baumbaugh,*



UNITED STATES STEEL

# cinch with this machine"

## U.S. STEEL DRILL PRESS OPERATOR



THE Multiple Spindle Drill Press that Boyd Baumbaugh operates is one of the most modern machines used in the manufacture of trackwork. In a minute and a half it will drill up to 40 perfect holes in a rail — simultaneously. Once the spindles are positioned and locked, the press will drill hundreds—thousands of identical sets of holes in rails, with no room for human error.

Standing at his remote panel board of 21 buttons and knobs, Boyd completely controls the automatic feeding, positioning, and holding of each rail, plus the feeding and speeds of the spindles, and the withdrawing of each rail after the holes have been drilled.

The purpose of these holes—ranging from  $\frac{7}{16}$  inch to 2 inches in diameter—is for connecting rail sections, mounting joint bars and reinforcing bars, and attaching other appendages. Although many combinations of hole spacings are required, the spindles in this remarkable drill press can be positioned to meet the specifications of any railroad.

Boyd Baumbaugh knows what his Multiple Spindle Drill Press can do—he's been operating it for 10 years. In the past, he's seen service as a welder, trackwork press operator and fitter. All told, Boyd has 25 years' service with U. S. Steel at Johnstown Works—a good solid background in trackwork for the job he does today.

But what does it all add up to—this ultra-modern machine with its confident, experienced operator? Just this—*years of experience, plus painstaking manufacture, make USS Trackwork the finest you can buy.* Write for further information—United States Steel Corporation, 525 William Penn Place, Room 4401, Pittsburgh 30, Pennsylvania.



# TRACKWORK

UNITED STATES STEEL CORPORATION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.  
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • UNITED STATES STEEL EXPORT COMPANY, NEW YORK





***"Both management  
and labor approve the  
Payroll Savings Plan..."***

**MEYER KESTNBAUM**

*President  
Hart Schaffner & Marx*

**"Both management and labor approve the Payroll Savings Plan for the purchase of United States Savings Bonds because it enables loyal American workers to help themselves and their country at the same time. A strong backlog of savings is a stabilizing factor in the economy. It is also an element of comfort and security for the individual because it helps him plan a sound future built on sound money. We at Hart Schaffner & Marx take pride in the fact that we introduced the Payroll Savings Plan in 1940 and that it has been continually in operation since that time."**

As president of a company which was among the first to offer its employees an opportunity to build for their future through the systematic investment in U.S. Savings Bonds, Mr. Kestnbaum is well qualified to evaluate the benefits of the Payroll Savings Plan:

- *"A strong backlog of savings"*: The cash value of Series E and H U.S. Savings Bonds held by individuals at the end of March, 1954 amounted to \$37,175,000,000.
- *"a stabilizing factor in the economy"*: The month-after-month investment of millions of dollars in Savings Bonds by more than 8,000,000 enrolled Payroll Savers constitutes probably our strongest check on inflation.
- *"a sound future built on sound money"*: During 1953, sales of Series E and H Savings Bonds—22% higher than in 1952—provided cash for all maturities and

redemptions of those series and still left more than \$210,000,000, net.

• *"Both management and labor approve the Payroll Savings Plan"*: In company after company, management and labor have joined in a planned effort to put a Payroll Savings application blank in the hands of every employee. These simple, person-to-person canvasses have built employee participation in many companies to 90%, 95% and even higher.

If employee participation in *your* Payroll Savings Plan is less than 50%—or if your company does not have a Payroll Savings Plan—get in touch with Savings Bond Division, U. S. Treasury Department, Washington, D. C. Learn how easy it is to help your country, your employees, and your company—through the Payroll Savings Plan.

*The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and*

**RAILWAY AGE**



# No Loss • No LAG

of valuable time! in labor efficiency!

Speed maintenance of  
way . . . construction jobs!  
Keep your crews refreshed  
with plenty of cool water.



## DIXIE INSULATED WATER CARRIER and *Dixie Cups*

- **HELPS REDUCE ACCIDENTS** due to heat fatigue.
- **CHECK CONTAGION!** Individual Dixie Cups check the spread of disease . . . absenteeism.

\* Send for Free Illustrated Folder!



Dixie Safety Slogans  
will help your men become  
more safety conscious.

### INSULATED DIXIE WATER CARRIER

Keeps water cool for hours.  
Available with dispenser for  
Dixie Cups of your choice. Use  
in central location—or it's  
portable with shoulder straps.



**Dixie** is a registered trade mark  
of the Dixie Cup Company

**DIXIE CUP COMPANY** Transportation Sales Dept., Easton, Pa.  
Other Factories Located at Chicago, Ill., Darlington, S.C., Ft. Smith, Ark., Anaheim, Calif., Brampton, Ont., Canada

# Assemble Aeroquip Hose Lines in Minutes ...

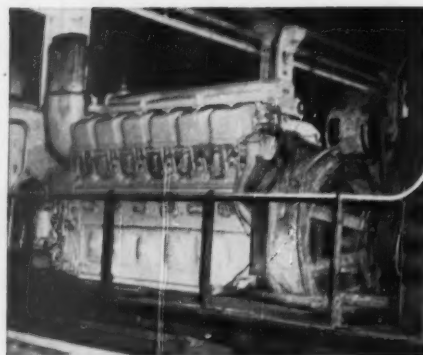
**Quick Replacement of Fuel,  
Lube, Air and Hydraulic Lines  
Keeps Equipment on the Job!**



The difference between minimum downtime and wasted hours often depends upon the speed with which a damaged fuel, lube, air, or hydraulic line can be replaced. If you operate mobile equipment, Aeroquip bulk hose and detachable, reusable fittings will provide a compact, portable inventory that meets all your hose line replacement needs.



You can make assemblies on the spot by cutting bulk hose to required length and attaching the reusable fittings. This "Aeroquip Idea" gets equipment back on the job fast. For information, see your Aeroquip distributor or write us.



Typical diesel-electric switch engine with hood removed. The flexible fuel lines shown in this view are all Aeroquip hose lines.



This railroad keeps Aeroquip bulk hose and fittings on hand so that hose lines can be made as they are required to replace rigid tubing failures. Only ordinary shop tools are needed.



This shop superintendent inspects a large 2½" (—40 size) Aeroquip hose line used in the lube oil system, from pump to filter, on a freight locomotive.

# Aeroquip

REG. TRADE MARK

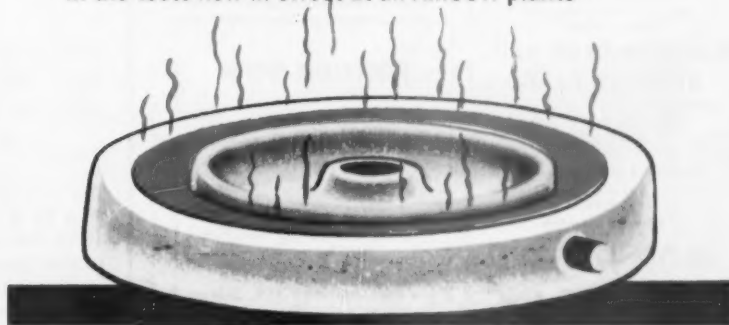
**AEROQUIP CORPORATION, JACKSON, MICHIGAN**

SALES OFFICES: Burbank, Calif. • Dayton, Ohio • Hagerstown, Md. • High Point, N. C. • Miami Springs, Fla. • Minneapolis, Minn.  
Portland, Ore. • Van Wert, Ohio • Wichita, Kan. • IN CANADA: Preco Progress and Engineering Corporation Ltd., Toronto  
IN ENGLAND: Super Oil Seals & Gaskets, Ltd., Birmingham

AEROQUIP PRODUCTS ARE FULLY PROTECTED BY PATENTS IN U.S.A. AND ABROAD

# tougher tests for a tougher wheel

the new AMCCW wheel proves it can take it  
in the tests now in effect at all AMCCW plants



In this test, molten metal is poured around the tread of a cold wheel, setting up thermal strains similar to those encountered in prolonged braking. The slightest evidence of cracking disqualifies a wheel. Length of test time now increased 25%.

All AMCCW wheels are now being inspected on the basis of more severe test specifications, voluntarily adopted by the Association in February, 1953.

These same specifications have been adopted by the AAR, and are now official.

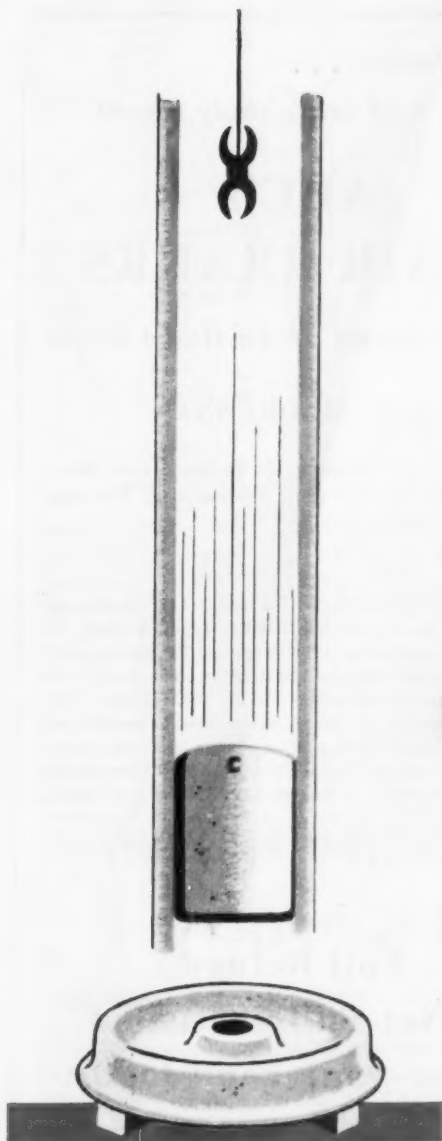
The tougher tests are a logical development of continuous improvement of AMCCW manufacturing methods and AMCCW wheels, resulting over the years in dramatic improvement in wheel performance... from 89,000,000 car miles per wheel failure in the five-year period 1938-42 to 128,600,000 car miles per wheel failure in the period of 1948-52!

Tougher tests like these assure continued advances in the years ahead.

## Association of Manufacturers of Chilled Car Wheels

445 North Sacramento Boulevard, Chicago 12, Ill.

Albany Car Wheel Co. • American Car & Foundry Co.  
Marshall Car Wheel & Foundry Co. • Griffin Wheel Co.  
Pullman-Standard Car Mfg. Co. • Southern Wheel (American Brake Shoe Co.)



Here a 250-pound tup is dropped on the hub of a wheel. Number of drops now increased 25%. Even so, it is a mighty rare occasion when the new AMCCW chilled car wheel breaks under this severe test.



In good supply  
Available locally  
Short-haul delivery  
Reduced inventory  
Low first cost  
Low exchange cost  
Increased ton mileage  
High safety standards  
AMCCW plant inspection  
Easier shop handling



## CLASSIFIED ADVERTISEMENTS

### RAILWAY EQUIPMENT FOR SALE

Used—As Is—Reconditioned

#### RAILWAY CARS

ALL TYPES

"SERVICE-TESTED"

Freight Car

Repair Parts

For All Types of Cars

#### LOCOMOTIVES

Diesel, Steam, Gasoline  
Diesel-Electric

#### RAILWAY TANK CARS STORAGE TANKS

6,000—8,000 and 10,000-Gallon  
Cleaned and Tested

#### CRANES

Overhead and Locomotive

#### RAILS

New or Relaying

### IRON & STEEL PRODUCTS, INC.

General Office

13498 S. Brainerd Ave.  
Chicago, 33, Illinois  
Phone: Mitchell 6-1212

New York Office

89-c Church Street  
New York 7, New York  
Phone: BEekman 3-8230  
"ANYTHING containing IRON  
or STEEL"

Use

Space Here

### Educational Services for RAILROAD MEN

Our New Service  
on  
Diesel Locomotive  
Operation  
is highly recommended  
for  
Engineers and Firemen

The Railway  
Educational Bureau  
Omaha 2, Nebraska

### POSITION OPEN

Old established Chicago supply  
company desires man with me-  
chanical background and knowl-  
edge of freight car specialties for  
development, service, and sales.  
Splendid opportunity for future  
advancement.

Box 6234, RAILWAY AGE, 79 West  
Monroe St., Chicago 3, Illinois.

### Robert W. Hunt Company ENGINEERS

Inspection—Tests—Consultation  
All Railway Equipment  
Structures and Materials

General Office:  
175 W. Jackson Boulevard  
CHICAGO  
New York-Pittsburgh-St. Louis

KEEP  
BUYING  
DEFENSE  
BONDS

Just published . . .

Vol. 1 of brake study course

## ABC's of AIR BRAKES

with Dictionary of Air Brake Terms

by C. M. DRENNAN

A teacher of air brakes to railroad men since  
1908; Retired supervisor of training, Westing-  
house Air Brake Co.

This complete introduction to the study of air brakes con-  
tains 70 of the famous "chalk talk" diagrams which the  
author has used successfully for years. Its three sections  
include: Section 1—friction and braking ratio; freight and  
passenger train brake control. Section 2—Description, func-  
tion and operation of pistons, valves, electric controls and  
other components. Section 3—air brake dictionary cover-  
ing words, terms and phrases, many of which have specific  
air brake meanings. Following each chapter is a quiz to  
test the student's absorption of the lesson. A practical  
book for practical men. 243 pages; approximately 8 by 11  
inches; cloth bound.

**Full Refund  
If Not Fully Satisfied  
Order your copy today**

**only \$4.75 postpaid**

### RAILWAY AGE BOOKS

30 Church St., New York 7, N.Y.

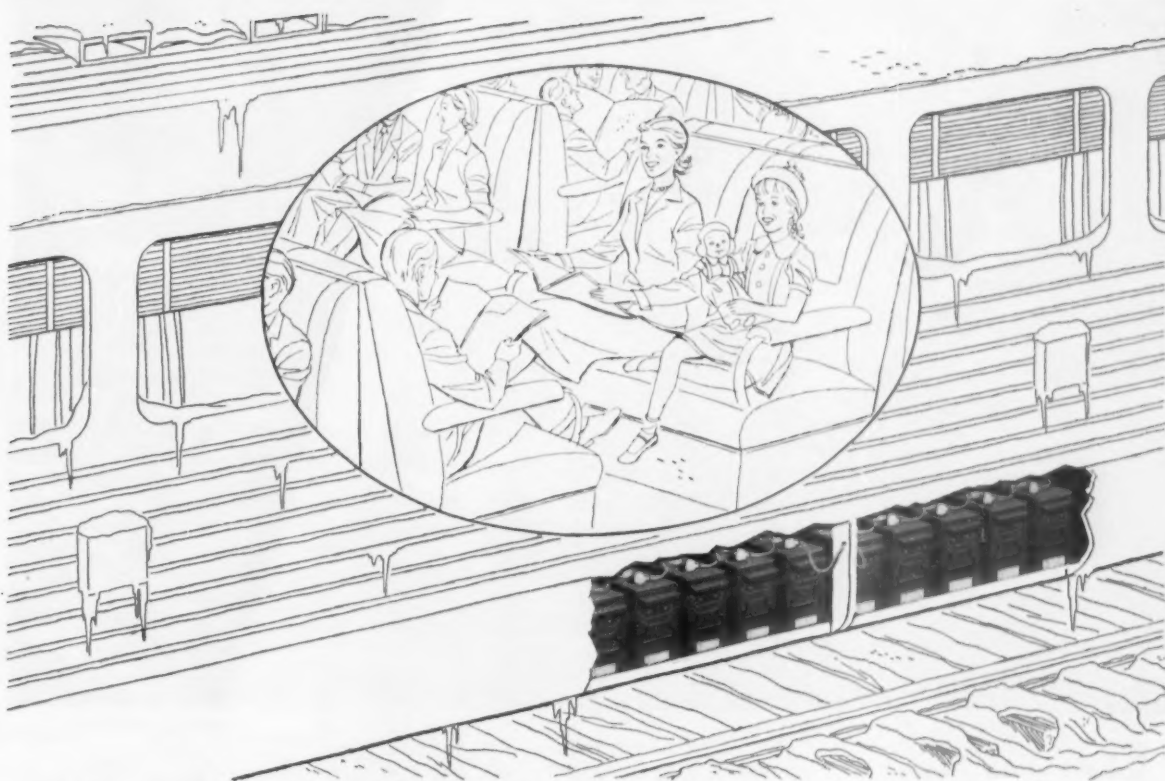
I enclose check or money order for \$..... Send post-  
paid, .... copies of ABC's of AIR BRAKES. If I am not  
satisfied, I may return books for full refund within 10 days  
after receipt.

Name .....

Address .....

City, Zone, State .....

6-28-54



## Average Battery Life 23 Years

## Average Winter Temperature 20° Below

**Frigid Winter Temperatures** averaging 20 below—frequently 40 below and sometimes 55 below—do not hamper the Ontario Northland Railway in providing modern passenger service through the land of the fur traders as far north as Moosonee on James Bay.

**Dependable Battery Performance** has materially contributed to the successful operation of this road's passenger equipment under such adverse conditions—aided only by insulated, snowtight battery compartments and positive generator drives.

**23 Years** is the average life of EDISON batteries used by this road; two sets are in their 37th year of service. Then too, EDISON batteries that

have completed normal service life are utilized for many extra years of service in baggage and combination cars.

**Regardless of Conditions,** EDISONS are the most dependable batteries you can install. Their extraordinary "long life" means lowest over-all cost. They can safely be kept in a high state of charge on the road, thus reducing the need for yard-charging. They successfully withstand the overcharging and overdischarging incidental to railway-car service. Complete facts on EDISON railroad batteries are available in Bulletin SB 3802. Write for your copy and the name of your nearest Edison field engineer today. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, N. J.



**Most Dependable Power —  
Lowest Over-all Cost**

**... you get both with an EDISON**



# EDISON

Nickel · Iron · Alkaline  
**STORAGE BATTERIES**

EDISON ALSO MAKES THE FAMOUS "V. P." VOICewriter AND THE TELEVOICE SYSTEM



## *Ample Resources for Schedules of Any Size* Railroad and Car Material

STRINGERS, CAPS AND SILLS  
IN DENSE SHORTLEAF PINE

CREOSOTED AND WOLMANIZED\*  
TREATED STOCK



SWITCH TIES IN OAK & GUM  
HERCULIFT PALLETS  
OAK FREIGHT CAR STOCK  
AND TIMBERS



\*Reg. U. S. Pat. Off.



**CROSSETT LUMBER COMPANY** { **CROSSETT**  
A DIVISION OF THE CROSSETT COMPANY { **ARKANSAS**



**reports:**



## **Replacement Costs Cut with Koppers Pressure-Treated Platform Decking**

• Rock Island Railroad had a very good reason for switching to Koppers Pressure-Treated Wood Decking in their freight house platforms. Previously, they used untreated wood, which had to be replaced about every three years. Now the Rock Island reports, "Since Koppers Pressure-Treated Decking was installed, there has been practically no replacement as a result of lift

truck damage or any other reason." This performance is saving the railroad time and money by sharply reducing maintenance costs.

Koppers Pressure-Treated Wood is being used by many railroads wherever low maintenance costs and long uninterrupted service are important to efficient and economical operation. Thoroughly protected with life-preserving chemicals forced

deep into the wood cells, Pressure-Treated Wood gives many additional years of service to car decking, trestle bridges, right-of-way fence posts, grade crossings and many other railroad uses.

Find out how much your railroad can save each year by using Koppers Pressure-Treated Wood. Write us for more information or a free analysis of your lumber problems.



**KOPPERS COMPANY, INC.**

**PRESSURE-TREATED WOOD**

**Wood Preserving Division, Pittsburgh 19, Pennsylvania**



# ADVERTISERS IN THIS ISSUE

Aeroquip Corp. .... 78	Agency—The Frank M. Randell Co.	Johns-Manville ..... 17	Agency—J. Walter Thompson Co.
American Car & Foundry Co. .... 34, 35	Agency—Hicks & Greist, Inc.	Kinnear Mfg. Co. .... 26	Agency—Wheeler, Knight & Gainey, Inc.
American Hair & Felt Co. .... 36	Agency—Oscar P. Holtzman	Koppers Co., Inc. .... 83	Agency—Batten, Barton, Durstine & Osborn, Inc.
American Locomotive Co. .... 18, 19, 73	Agency—Hazard Advtg. Co.	Lamson & Sessions Co., The ..... 46	Agency—Belden & Hickox
Association of Mfgs. of Chilled Car Wheels ..... 79	Agency—The Schuyler Hopper Co.	Lehon Co., The ..... 30	Agency—Thomas Wainwright & Assoc.
Bethlehem Steel Co. .... 1	Agency—Jones & Brakeley, Inc.	Manning, Maxwell & Moore, Inc. .... 72	Agency—Fuller & Smith & Ross, Inc.
Blaw-Knox Co. .... 27	Agency—Ketchum, MacLeod & Grove, Inc.	National Malleable & Steel Castings Co. .... 69	Agency—Palm & Patterson, Inc.
Brake Shoe & Castings Division	American Brake Shoe Co. .... 70, 71	Railway Educational Bureau, The ..... 80	
Agency—Doyle, Kitchen & McCormick, Inc.		Scullin Steel Co. .... 29	Agency—Batz—Hodgson—Newwoehner
Cardwell-Westinghouse Co. .... Inside Front Cover	Agency—Stuart Potter Co.	Sinclair Refining Co. .... 14, 15	Agency—Morey, Humm & Johnstone, Inc.
Caterpillar Tractor Co. .... 48	Agency—N. W. Ayer & Son, Inc.	Socony-Vacuum Oil Co., Inc. .... 42	Agency—Compton Advtg., Inc.
Chicago Steel Service Co. .... 84	Agency—Fred H. Ebersold, Inc.	Southern Wheel Division, Amer. Brake Shoe Co. ... 37	Agency—Fuller & Smith & Ross, Inc.
Columbia-Geneva Steel, Division of U. S. Steel Corp. .... 74, 75	Agency—Batten, Barton, Durstine & Osborn, Inc.	Sperry Products, Inc. .... 45	Agency—Hazard Advtg. Co.
Crossett Lumber Co. .... 82	Agency—Brooks-Pollard Co.	Superheater Co., The ..... 28	Agency—G. M. Basford Co.
Dixie Cup Co. .... 77	Agency—Hicks & Greist, Inc.	Superior Steel & Malleable Castings Co. .... 72	Agency—Paxson Advtg., Inc.
Edgewater Steel Co. .... 6	Agency—Walker & Downing	Tennessee Coal & Iron, Division of U. S. Steel Corp. .... 74, 75	Agency—Batten, Barton, Durstine & Osborn, Inc.
Edison Storage Battery Division, Thomas A Edison Inc. .... 81	Agency—Ketchum, MacLeod & Grove, Inc.	Timken Roller Bearing Co., The ..... Front Cover	Agency—Batten, Barton, Durstine & Osborn, Inc.
Electric Storage Battery Co. .... 32	Agency—Gear-Marston, Inc.	Union Switch & Signal ..... 2	Agency—Batten, Barton, Durstine & Osborn, Inc.
Electric Tamper & Equipment Co. .... 4	Agency—Stevens, Inc.	United States Steel Corp. .... 74, 75	Agency—Batten, Barton, Durstine & Osborn, Inc.
Electro-Motive Division, General Motors Corp. .... 13	Agency—Kudner Agency, Inc.	United States Steel Export Co. .... 74, 75	Agency—Batten, Barton, Durstine & Osborn, Inc.
Eso Standard Oil Co. .... Inside Back Cover	Agency—McCann, Erickson, Inc.	Waugh Equipment Co. .... 16	
Fairbanks Morse & Co. .... 33	Agency—The Buchen Co.	Western Railroad Supply Co. .... 40	Agency—Merrill, McEnroe & Assoc.
L. B. Foster Co. .... 47	Agency—Lando Advtg. Agency	Westinghouse Air Brake Company ..... 31	Agency—Batten, Barton, Durstine & Osborn, Inc.
General Railway Signal Co. .... Back Cover		Yale & Towne Mfg. Co. .... 41	Agency—Ruthrauff & Ryan, Inc.
Hunt, Robert W. Co. .... 80		Youngstown Sheet & Tube Co., The ..... 20	Agency—The Griswold-Eshleman Co.
Hyatt Bearings Division, General Motors Corp. ... 38 39	Agency—D. P. Brother & Co., Inc.	Youngstown Steel Car Corp. .... 72	Agency—Meek & Thomas, Inc.
Hyman-Michales Co. .... 72			
Iron & Steel Products, Inc. .... 80			

The House of Stainless



CHICAGO STEEL SERVICE COMPANY

Kildare Ave. at 45th St. Chicago 32, Ill. Telephone LAfayette 3-7210

COMPLETE SERVICE IN STAINLESS and CARBON STEELS

# 300 TON

"Swiss watch"



Although massive and tremendously powerful, the diesel locomotive is a finely tooled, precision-built machine. That's why there is a wide variety of Esso Railroad Lubricants, each prepared to service a particular group of working parts, and each tailor-made to assure peak efficiency.

Like Esso Railroad Lubricants, Esso Diesel Fuel is a product carefully developed and laboratory-tested for diesel locomotives...it has proved itself by top performance through millions of miles in actual use.

For high-quality, dependable fuels and lubricants, specify Esso Railroad Products.



**RAILROAD  
PRODUCTS**

**Like All Esso Railroad Products These Assure You Dependable Performance**

Diesel Fuels  
ESSO ANDOK Lubricants—  
versatile greases  
ARACAR—journal box oils  
ARAPEN—brake cylinder  
lubricant  
ESSO XP Compound—hypoid  
gear lubricant

DIOL RD—Diesel lube oil  
COBLAX—traction motor gear  
lube  
VARSOL—Stoddard Solvent  
SOLVESSO—Aromatic solvent  
ESSO Weed Killer  
ESSO Hot Box Compound  
AROX—pneumatic tool lube

CYLESSO—valve oil  
ESSO Journal box compound  
Asphalt  
Cutting Oils  
Rail Joint Compounds  
Maintenance of Way Products  
Signal Department Products  
RUST-BAN—corrosion preventive

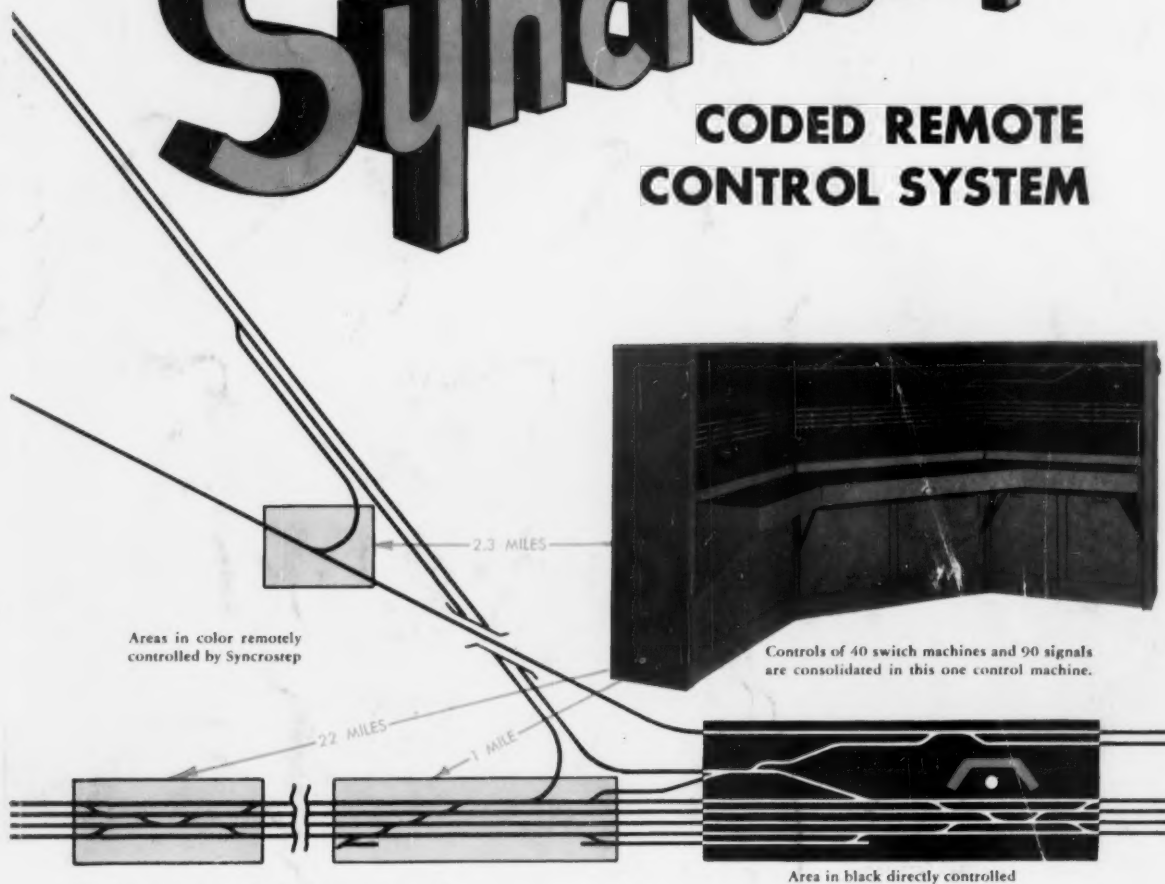
SOLD IN: Maine, N. H., Vt., Mass., R. I.,  
Conn., N. Y., N. J., Pa., Del., Md., D. C.,  
Va., W. Va., N. C., S. C., Tenn., Ark., La.  
ESSO STANDARD OIL COMPANY  
Boston, Mass. — Pelham, N.Y. — Elizabeth,  
N. J. — Philadelphia, Pa. — Baltimore, Md. —  
Richmond, Va. — Charlotte, N. C. — Columbia,  
S. C. — Memphis, Tenn. — New Orleans, La.

# Consolidate Control of Interlockings

with

# G-R-S Syncrostep

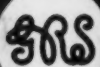
## CODED REMOTE CONTROL SYSTEM



- Fast transmission: one second for a control, two for an indication.
- Two line wires: use open line, cable, or carrier channel over any distance.
- Economy: simple operating principle saves in first cost and maintenance.

Ask your G-R-S district office for information on G-R-S Syncrostep.

A-2648A



## GENERAL RAILWAY SIGNAL COMPANY

230 Park Av. 122 S. Mich. Av. Main Office 611 Olive St.  
NEW YORK 17 CHICAGO 3 ROCHESTER 2, N. Y. ST. LOUIS 1

